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WHEN: Tuesday, September 17, 2013
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The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. FAA–2013–0781; Special Conditions No. 23–261–SC]

Special Conditions: Cirrus Design Corporation, Model SF50; Inflatable Three-Point Restraint Safety Belt With an Integrated Airbag Device

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the Cirrus Design Corporation (Cirrus), model SF50. This airplane will have novel and unusual design features associated with installation of an inflatable three-point restraint safety belt with an integrated airbag device at the pilot and co-pilot seats to include optional installations at other passenger seat locations. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: The effective date of these special conditions is September 11, 2013. We must receive comments by October 11, 2013.

ADDRESSES: Send comments identified by docket number [FAA–2013–0781] using any of the following methods:

☐ *Federal eRegulations Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.

☐ *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.

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☐ *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: The FAA will post all comments it receives, without change, to *http://regulations.gov,* including any personal information the commenter provides. Using the search function of the docket Web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the **Federal Register** published on April 11, 2000 (65 FR 19477–19478), as well as at *http://DocketsInfo.dot.gov.*

Docket: Background documents or comments received may be read at *http://www.regulations.gov* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Bob Stegeman, Federal Aviation Administration, Aircraft Certification Service, Small Airplane Directorate, ACE–111, 901 Locust, Kansas City, Missouri, 816–329–4140, fax 816–329–4090.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment is impractical because these procedures would significantly delay issuance of approval and thus delivery of the affected aircraft. In addition, the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA, therefore, finds that good cause exists for making these special conditions effective upon issuance.

Comments Invited

We invite interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive.

Background

On September 9, 2008, Cirrus applied for a Type Certificate for their new Model SF50. The SF50 is a single-engine turbofan powered jet that can carry up to seven occupants.

This aircraft will include a three-point safety belt restraint system with integrated airbags for the pilot and co-pilot seats. The aircraft will have airbags as a standard feature on all of the pilot and copilot seat locations with optional airbags offered at other passenger locations. Optional locations must meet all applicable special conditions.

The inflatable restraint systems are a three-point safety belt restraint system consisting of a lap belt and shoulder harness with an inflatable airbag attached to the lap belt. The inflatable portion of the restraint system will rely on sensors to activate the inflator electronically for deployment.

When activated, the airbags will inflate and provide a protective cushion between the occupant's head and the structure within the airplane. This will reduce the potential for head and torso injury. The inflatable restraint behaves in a manner similar to an automotive airbag; however, in this case, the airbag is integrated into the lap belt. While airbags and inflatable restraints are standard in the automotive industry, the use of an inflatable restraint system is novel for general aviation operations.

The FAA has determined that this project will be accomplished based on providing the same current level of safety as the conventional certification basis airplane occupant restraint systems. The FAA has two primary safety concerns with the installation of airbags or inflatable restraints:

- They perform properly under foreseeable operating conditions; and
- They do not perform in a manner or at such times as to impede the pilot's

ability to maintain control of the airplane or constitute a hazard to the airplane or occupants.

The latter point has the potential to be the more rigorous of the requirements. An unexpected deployment while conducting the takeoff or landing phases of flight may result in an unsafe condition. The unexpected deployment may either startle the pilot or generate a force sufficient to cause a sudden movement of the control yoke. Either action could result in a loss of control of the airplane, the consequences of which are magnified due to the low operating altitudes and speeds during these phases of flight. The FAA has considered this when establishing these special conditions.

The inflatable restraint system relies on sensors to activate the inflator electronically for deployment. These sensors could be susceptible to inadvertent activation, causing deployment in a potentially unsafe manner. The consequences of an inadvertent deployment must be considered in establishing the reliability of the system. The applicant must show that the effects of an inadvertent deployment in flight are not a hazard to the airplane or that an inadvertent deployment is extremely improbable. In addition, general aviation aircraft are susceptible to a large amount of cumulative wear and tear on a restraint system. The potential for inadvertent deployment may increase because of this cumulative damage. Therefore, the impact of wear and tear on inadvertent deployment must be considered. The effect of this cumulative damage means a life limit must be established for the appropriate system components in the restraint system design.

There are additional factors to be considered to minimize the chances of inadvertent deployment. General aviation airplanes are exposed to a unique operating environment, since the same airplane may be used by both experienced and student pilots. The effect of this environment on inadvertent deployment must be understood. Therefore, qualification testing of the firing hardware/software must consider the following:

- The airplane vibration levels appropriate for a general aviation airplane; and
- The airplane inertial loads that result from typical flight or ground maneuvers, including gusts and hard landings.

Any tendency for the firing mechanism to activate as a result of these loads or acceleration levels is unacceptable.

Other influences on inadvertent deployment include High Intensity Electromagnetic Fields (HIRF) and lightning. Since the sensors that trigger deployment are electronic, they must be protected from the effects of these threats. To comply with HIRF and lightning requirements, the inflatable restraint system is considered a critical system, since its inadvertent deployment could have a hazardous effect on the airplane.

Given the level of safety of the occupant restraints currently installed, the inflatable restraint system must show it will offer an equivalent level of protection for an emergency landing. If an inadvertent deployment occurs, the restraint must still be at least as strong as a Technical Standard Order approved belt and shoulder harnesses. There is no requirement for the inflatable portion of the restraint to offer protection during multiple impacts, where more than one impact would require protection.

The inflatable restraint system must deploy and provide protection for each occupant under an emergency landing condition. The seats of the model SF50 airplanes are certificated to the structural requirements of § 23.562; therefore, the test emergency landing pulses identified in § 23.562 must be used to satisfy this requirement.

A wide range of occupants may use the inflatable restraint; therefore, the protection offered by this restraint should be effective for occupants that range from the fifth percentile female to the ninety-fifth percentile male. Energy absorption must be performed in a consistent manner for this occupant range.

In support of this operational capability, there must be a means to verify the integrity of this system before each flight. Cirrus may establish inspection intervals where they have demonstrated the system to be reliable between these intervals.

An inflatable restraint may be ''armed'' even though no occupant is using the seat. While there will be means to verify the integrity of the system before flight, it is also prudent to require unoccupied seats with active restraints not constitute a hazard to any occupant. This will protect any individual performing maintenance inside the cockpit while the aircraft is on the ground. The restraint must also provide suitable visual warnings that would alert rescue personnel to the presence of an inflatable restraint system.

In addition, the design must prevent the inflatable seatbelt from being incorrectly buckled and/or installed such that the airbag would not properly deploy. Cirrus may show that such deployment is not hazardous to the occupant and will still provide the required protection.

The cabin of the Cirrus model SF50 airplane is a confined area and the FAA is concerned that noxious gasses may accumulate if the airbag deploys. When deployment occurs, either by design or inadvertently, there must not be a release of hazardous quantities of gas or particulate matter into the cockpit.

An inflatable restraint should not increase the risk already associated with fire. Therefore, the inflatable restraint should be protected from the effects of fire to avoid creating an additional hazard by, for example, a rupture of the inflator.

Finally, the airbag is likely to have a large volume displacement, and possibly impede the egress of an occupant. Since the airbag deflates to absorb energy, it is likely that the inflatable restraint would be deflated at the time an occupant would attempt egress. However, it is appropriate to specify a time interval after which the inflatable restraint may not impede rapid egress. Ten seconds has been chosen as reasonable time. This time limit will offer a level of protection throughout the impact event.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Cirrus must show that the model SF50 meets the applicable provisions of part 23, as amended by amendment 23–62 thereto.

If the Administrator finds that the applicable airworthiness regulations (i.e., 14 CFR part 23, Amendment 23–62) do not contain adequate or appropriate safety standards for the SF50 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the SF50 must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34, amendment 34–4, and the noise certification requirements of 14 CFR part 36, amendment 36–28; and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions in accordance with §§ 11.19 and 11.38 and they become part of the type certification basis under § 21.17(a)(2).

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual

design feature, the special conditions would also apply to the other model.

Novel or Unusual Design Features

The SF50 will incorporate the following novel or unusual design feature:

A three-point safety belt restraint system incorporating an inflatable airbag.

Discussion

The SF50 will have novel and unusual design features associated with installation of an inflatable three-point restraint safety belt with an integrated airbag device at the pilot and co-pilot seats. The manufacturer will also offer optional airbags at other passenger locations. Optional locations must meet all applicable special conditions. The purpose of the airbag is to reduce the potential for injury in the event of an accident. In a severe impact, an airbag will deploy from the lap belt in a manner similar to an automotive airbag. The airbag will deploy between the head of the occupant and airplane interior structure, which will provide some protection to the head of the occupant. The restraint will rely on sensors to activate the inflator electronically for deployment.

Section 23.562 states performance criteria for seats and restraints in an objective manner. However, none of these criteria is adequate to address the specific issues raised concerning inflatable restraints. Therefore, the FAA has determined that, in addition to the requirements of parts 21 and 23, special conditions are needed to address the installation of this inflatable restraint.

Accordingly, these special conditions are adopted for the Cirrus Design Corporation Model SF50 airplane equipped with three-point inflatable restraints. Other conditions may be developed, as needed, based on further FAA review and discussions with the manufacturer and civil aviation authorities.

Applicability

As discussed above, these special conditions are applicable to the model SF50 equipped with the three-point inflatable restraint systems. Should Cirrus Design Corporation apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on model SF50 airplanes. It is not a rule of general applicability and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

The substance of these special conditions has been subjected to the notice and comment period in several prior instances and has been derived without substantive change from those previously issued. It is unlikely that prior public comment would result in a significant change from the substance contained herein. Therefore, because a delay would significantly affect the certification of the airplane, which is imminent, the FAA has determined that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment described above.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.17; and 14 CFR 11.19 and 11.38.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for the Cirrus Design Corporation Model SF 50 airplane.

1. Inflatable Three-Point Restraint Safety Belt with an Integrated Airbag Device

a. It must be shown that the inflatable restraint will deploy and provide protection under crash conditions. Compliance will be demonstrated using the dynamic test condition specified in § 23.562(b)(2). It is not necessary to account for floor warpage, as required by § 23.562(b)(3), or vertical dynamic loads, as required by § 23.562(b)(1). The means of protection must take into consideration a range of stature from a 5th percentile female to a 95th percentile male. The inflatable restraint must provide a consistent approach to energy absorption throughout that range.

b. The inflatable restraint must provide adequate protection for each occupant. In addition, unoccupied seats that have an active restraint must not constitute a hazard to any occupant.

c. The design must prevent the inflatable restraint from being incorrectly buckled and/or incorrectly installed such that the airbag would not properly deploy. Alternatively, it must be shown that such deployment is not hazardous to the occupant and will provide the required protection.

d. It must be shown that the inflatable restraint system is not susceptible to inadvertent deployment as a result of wear and tear or inertial loads resulting from in-flight or ground maneuvers (including gusts and hard landings) that are likely to be experienced in service.

e. It must be extremely improbable for an inadvertent deployment of the restraint system to occur, or an inadvertent deployment must not impede the pilot's ability to maintain control of the airplane or cause an unsafe condition (or hazard to the airplane). In addition, a deployed inflatable restraint must be at least as strong as a Technical Standard Order (C114) certificated belt and shoulder harness.

f. It must be shown that deployment of the inflatable restraint system is not hazardous to the occupant or result in injuries that could impede rapid egress. This assessment should include occupants whose restraint is loosely fastened.

g. It must be shown that an inadvertent deployment that could cause injury to a standing or sitting person is improbable. In addition, the restraint must provide suitable visual warnings that would alert rescue personnel to the presence of an inflatable restraint system.

h. It must be shown that the inflatable restraint will not impede rapid egress of the occupants 10 seconds or later after its deployment.

i. For the purposes of complying with HIRF and lightning requirements, the inflatable restraint system is considered a critical system since its deployment could have a hazardous effect on the airplane.

j. It must be shown that the inflatable restraints will not release hazardous quantities of gas or particulate matter into the cabin.

k. The inflatable restraint system installation must be protected from the effects of fire such that no hazard to occupants will result.

l. There must be a means to verify the integrity of the inflatable restraint activation system prior to each flight or it must be demonstrated to reliably operate between inspection intervals.

m. A life limit must be established for appropriate system components.

n. Qualification testing of the internal firing mechanism must be performed at

vibration levels appropriate for a general aviation airplane.

Issued in Kansas City, Missouri on September 4, 2013.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–22101 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–13–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 721

[EPA–HQ–OPPT–2011–0941; FRL–9398–7]

RIN 2070–AB27

Significant New Use Rule on Certain Chemical Substances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Under the Toxic Substances Control Act (TSCA), EPA is finalizing the significant new use rule (SNUR) for three chemical substances which were the subject of premanufacture notices (PMNs) and subject to a TSCA section 5(e) consent order issued by EPA. This action requires persons who intend to manufacture (including import) or process any of these three chemical substances for an activity that is designated as a significant new use by this final rule to notify EPA at least 90 days before commencing that activity. The required notification will provide EPA with the opportunity to evaluate the intended use and, if necessary, to prohibit or limit that activity before it occurs.

DATES: This final rule is effective October 11, 2013.

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPPT–2011–0941, is available at *http://www.regulations.gov* or at the Office of Pollution Prevention and Toxics Docket (OPPT Docket), Environmental Protection Agency Docket Center (EPA/DC), EPA West Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPPT Docket is (202) 566–0280. Please review the visitor instructions and additional information about the docket available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT:

For technical information contact: Kenneth Moss, Chemical Control Division (7405M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (202) 564–9232; email address: *moss.kenneth@epa.gov.*

For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554–1404; email address: *TSCA-Hotline@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Does this action apply to me?

You may be potentially affected by this action if you manufacture, process, or use the chemical substances contained in this final rule. Potentially affected entities may include, but are not limited to:

- Manufacturers or processors of the subject chemical substances (NAICS codes 325 and 324110), e.g., chemical manufacturing and petroleum refineries.

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. To determine whether you or your business may be affected by this action, you should carefully examine the applicability provisions in § 721.5. If you have questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

This action may also affect certain entities through pre-existing import certification and export notification rules under TSCA. Chemical importers are subject to the TSCA section 13 (15 U.S.C. 2612) import certification requirements promulgated at 19 CFR 12.118 through 12.127 and 19 CFR 127.28. Chemical importers must certify that the shipment of the chemical substance complies with all applicable rules and orders under TSCA. Importers of chemicals subject to a SNUR must certify their compliance with the SNUR requirements. The EPA policy in support of import certification appears at 40 CFR part 707, subpart B. In addition, any persons who export or intend to export a chemical substance that is the subject of a proposed or final SNUR are subject to the export notification provisions of TSCA section 12(b) (15 U.S.C. 2611(b)) (see § 721.20), and must comply with the export notification requirements in 40 CFR part 707, subpart D.

II. Background

A. What action is the agency taking?

EPA is finalizing a SNUR under TSCA section 5(a)(2) for three chemical substances that were the subject of PMNs and subject to a TSCA section 5(e) consent order issued by EPA. The SNUR is codified at 40 CFR 721.10515. The final SNUR designates as a significant new use manufacture (including import) or processing in the presence of the restrictions required in the consent order. The final SNUR for these substances is based on and consistent with the provisions in the underlying consent order. This final action requires persons who intend to manufacture or process the chemical substances for an activity that is designated as a significant new use by this final rule to notify EPA at least 90 days before commencing that activity.

This rule was proposed in the **Federal Register** issue of January 23, 2013 (78 FR 4806) (FRL–6369–9). EPA received no public comments in response to the proposal for PMNs P–10–58, P–10–59, and P–10–60. Therefore, the Agency is issuing a final SNUR, as proposed that:

1. Revises significant new use requirements for specific uses identified in the consent order.

EPA did receive and comments on the remaining chemical substance in the proposed rule, PMN P–07–0204 (§ 721.10509), and will address that in a future, separate action.

B. What is the agency's authority for taking this action?

Section 5(a)(2) of TSCA (15 U.S.C. 2604(a)(2)) authorizes EPA to determine that a use of a chemical substance is a ''significant new use.'' EPA must make this determination by rule after considering all relevant factors, including those listed in TSCA section 5(a)(2). Once EPA determines that a use of a chemical substance is a significant new use, TSCA section 5(a)(1)(B) requires persons to submit a significant new use notice (SNUN) to EPA at least 90 days before they manufacture or process the chemical substance for that use. Persons who must report are described in § 721.5.

C. Applicability of General Provisions

General provisions for SNURs appear in 40 CFR part 721, subpart A. These provisions describe persons subject to the rule, recordkeeping requirements, exemptions to reporting requirements,

and applicability of the final rule to uses occurring before the effective date of the final rule. Provisions relating to user fees appear at 40 CFR part 700. According to § 14;721.1(c), persons subject to these SNURs must comply with the same SNUN requirements and EPA regulatory procedures as submitters of PMNs under TSCA section 5(a)(1)(A). In particular, these requirements include the information submission requirements of TSCA section 5(b) and 5(d)(1), the exemptions authorized by TSCA sections 5(h)(1), (h)(2), (h)(3), and (h)(5), and the regulations at 40 CFR part 720. Once EPA receives a SNUN, EPA may take regulatory action under TSCA section 5(e), 5(f), 6, or 7 to control the activities for which it has received the SNUN. If EPA does not take action, EPA is required under TSCA section 5(g) to explain in the **Federal Register** its reasons for not taking action.

III. Rationale and Objectives of the Final Rule

A. Rationale

During review of the PMNs submitted for the three chemical substances, EPA concluded that regulation was warranted under TSCA section 5(e), pending the development of information sufficient to make reasoned evaluations of the health or environmental effects of the chemical substances. Based on these findings, a TSCA section 5(e) consent order requiring the use of appropriate exposure controls were negotiated with the PMN submitter. The SNUR provisions for these chemical substances are consistent with the provisions of the TSCA section 5(e) consent order. This SNUR is promulgated pursuant to § 14;721.160. See the docket under docket ID number EPA–HQ–OPPT–2011–0941 for the corresponding consent orders.

B. Objectives

EPA is issuing this final SNUR for specific chemical substances which have undergone premanufacture review because the Agency wants to achieve the following objectives with regard to the significant new uses designated in this final rule:

- EPA will receive notice of any person's intent to manufacture or process a listed chemical substance for the described significant new use before that activity begins.
- EPA will have an opportunity to review and evaluate data submitted in a SNUN before the notice submitter begins manufacturing or processing a listed chemical substance for the described significant new use.
- EPA will be able to regulate prospective manufacturers or processors of a listed chemical substance before the described significant new use of that chemical substance occurs, provided that regulation is warranted pursuant to TSCA section 5(e), 5(f), 6, or 7.
- EPA will ensure that all manufacturers and processors of the same chemical substance that is subject to a TSCA section 5(e) consent order are subject to similar requirements.

Issuance of a SNUR for a chemical substance does not signify that the chemical substance is listed on the TSCA Chemical Substance Inventory (TSCA Inventory). Guidance on how to determine if a chemical substance is on the TSCA Inventory is available on the Internet at *http://www.epa.gov/opptintr/existingchemicals/pubs/tscainventory/index.html.*

IV. Significant New Use Determination

Section 5(a)(2) of TSCA states that EPA's determination that a use of a chemical substance is a significant new use must be made after consideration of all relevant factors, including:

- The projected volume of manufacturing and processing of a chemical substance.
- The extent to which a use changes the type or form of exposure of human beings or the environment to a chemical substance.
- The extent to which a use increases the magnitude and duration of exposure of human beings or the environment to a chemical substance.
- The reasonably anticipated manner and methods of manufacturing, processing, distribution in commerce, and disposal of a chemical substance.

In addition to these factors enumerated in TSCA section 5(a)(2), the statute authorized EPA to consider any other relevant factors. To determine what would constitute a significant new use for the three chemical substances that are the subject of this SNUR, EPA considered relevant information about the toxicity of the chemical substances, likely human exposures and environmental releases associated with possible uses, and the four bulleted TSCA section 5(a)(2) factors listed in this unit.

V. Applicability of the Significant New Use Designation

If uses begun after the proposed rule was published were considered ongoing rather than new, any person could defeat the SNUR by initiating the significant new use before the final rule was issued. Therefore, EPA has designated the date of publication of the proposed rule as the cutoff date for determining whether the new use is ongoing. Consult the **Federal Register** document of April 24, 1990 (55 FR 17376) (FRL–3658–5) for a more detailed discussion of the cutoff date for ongoing uses.

Any person, who began commercial manufacture or processing of the chemical substances for any of the significant new uses designated in the proposed SNUR after the date of publication of the proposed SNUR, must stop that activity before the effective date of the final rule. Persons who ceased those activities will have to first comply with all applicable SNUR notification requirements and wait until the notice review period, including any extensions, expires, before engaging in any activities designated as significant new uses. If a person were to meet the conditions of advance compliance under § 721.45(h), the person would be considered to have met the requirements of the final SNUR for those activities.

VI. Test Data and Other Information

EPA recognizes that TSCA section 5 does not require developing any particular test data before submission of a SNUN. The two exceptions are:

1. Development of test data is required where the chemical substance subject to the SNUR is also subject to a test rule under TSCA section 4 (see TSCA section 5(b)(1)).
2. Development of test data may be necessary where the chemical substance has been listed under TSCA section 5(b)(4) (see TSCA section 5(b)(2)).

In the absence of a TSCA section 4 test rule or a TSCA section 5(b)(4) listing covering the chemical substance, persons are required only to submit test data in their possession or control and to describe any other data known to or reasonably ascertainable by them (see 40 CFR 720.50). However, upon review of PMNs and SNUNs, the Agency has the authority to require appropriate testing.

In the TSCA section 5(e) consent orders for the chemical substances regulated under this final rule, EPA has established restrictions in view of the lack of data on the potential health and environmental risks that may be posed by the significant new uses or increased exposure to the chemical substances. These restrictions will not be removed until EPA determines that the unrestricted use will not present an unreasonable risk of injury or result in significant or substantial exposure or environmental release. This determination is usually made based on the results of the required or recommended toxicity tests. In cases where EPA issued a TSCA section 5(e)

consent order that requires or recommends certain testing, Unit IV. of the proposed rule lists tests required or recommended in each of the section 5(e) consent orders underlying the proposed section 5(e) SNURs. Descriptions of tests are provided for informational purposes. EPA strongly encourages persons, before performing any testing, to consult with the Agency pertaining to protocol selection.

SNUN submitters should be aware that EPA will be better able to evaluate SNUNs which provide detailed information on the following:

- Human exposure and environmental release that may result from the significant new use of the chemical substances.
- Potential benefits of the chemical substances.
- Information on risks posed by the chemical substances compared to risks posed by potential substitutes.

VII. SNUN Submissions

According to § 721.1(c), persons submitting a SNUN must comply with the same notification requirements and EPA regulatory procedures as persons submitting a PMN, including submission of test data on health and environmental effects as described in 40 CFR 720.50. SNUNs must be submitted on EPA Form No. 7710–25, generated using e-PMN software, and submitted to the Agency in accordance with the procedures set forth in 40 CFR 720.40 and § 721.25. E–PMN software is available electronically at *http://www.epa.gov/opptintr/newchems.*

VIII. Economic Analysis

EPA has evaluated the potential costs of establishing SNUN requirements for potential manufacturers and processors of the chemical substances during the development of the direct final rule. EPA's complete economic analysis is available in the docket under docket ID number EPA–HQ–OPPT–2011–0941.

IX. Statutory and Executive Order Reviews

A. Executive Order 12866

This final rule establishes a SNUR for three new chemical substances that were the subject of PMNs and a TSCA section 5(e) consent order. The Office of Management and Budget (OMB) has exempted these types of actions from review under Executive Order 12866, entitled *''Regulatory Planning and Review''* (58 FR 51735, October 4, 1993).

B. Paperwork Reduction Act (PRA)

According to PRA (44 U.S.C. 3501 *et seq.*), an Agency may not conduct or sponsor, and a person is not required to respond to a collection of information that requires OMB approval under PRA, unless it has been approved by OMB and displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register**, are listed in 40 CFR part 9, and included on the related collection instrument or form, if applicable. EPA is amending the table in 40 CFR part 9 to list the OMB approval number for the information collection requirements contained in this final rule. This listing of the OMB control numbers and their subsequent codification in the CFR satisfies the display requirements of PRA and OMB's implementing regulations at 5 CFR part 1320. This Information Collection Request (ICR) was previously subject to public notice and comment prior to OMB approval, and given the technical nature of the table, EPA finds that further notice and comment to amend it is unnecessary. As a result, EPA finds that there is ''good cause'' under section 553(b)(3)(B) of the Administrative Procedure Act (5 U.S.C. 553(b)(3)(B)) to amend this table without further notice and comment.

The information collection requirements related to this action have already been approved by OMB pursuant to PRA under OMB control number 2070–0012 (EPA ICR No. 574). This action does not impose any burden requiring additional OMB approval. If an entity were to submit a SNUN to the Agency, the annual burden is estimated to average between 30 and 170 hours per response. This burden estimate includes the time needed to review instructions, search existing data sources, gather and maintain the data needed, and complete, review, and submit the required SNUN.

Send any comments about the accuracy of the burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, Office of Environmental Information (2822T), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001. Please remember to include the OMB control number in any correspondence, but do not submit any completed forms to this address.

C. Regulatory Flexibility Act (RFA)

On February 18, 2012, EPA certified pursuant to RFA section 605(b) (5 U.S.C. 601 *et seq.*), that promulgation of a SNUR does not have a significant economic impact on a substantial number of small entities where the following are true:

1. A significant number of SNUNs would not be submitted by small entities in response to the SNUR.
2. The SNUR submitted by any small entity would not cost significantly more than $8,300.

A copy of that certification is available in the docket for this final rule.

This final rule is within the scope of the February 18, 2012 certification. Based on the Economic Analysis discussed in Unit VIII. and EPA's experience promulgating SNURs (discussed in the certification), EPA believes that the following are true:

- A significant number of SNUNs would not be submitted by small entities in response to the SNUR.
- Submission of the SNUN would not cost any small entity significantly more than $8,300. Therefore, the promulgation of the SNUR would not have a significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act (UMRA)

Based on EPA's experience with proposing and finalizing SNURs, State, local, and Tribal governments have not been impacted by these rulemakings, and EPA does not have any reasons to believe that any State, local, or Tribal government will be impacted by this final rule. As such, EPA has determined that this final rule does not impose any enforceable duty, contain any unfunded mandate, or otherwise have any effect on small governments subject to the requirements of UMRA sections 202, 203, 204, or 205 (2 U.S.C. 1501 *et seq.*).

E. Executive Order 13132

This action will not have a substantial direct effect on States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999).

F. Executive Order 13175

This final rule does not have Tribal implications because it is not expected to have substantial direct effects on Indian Tribes. This final rule does not significantly nor uniquely affect the communities of Indian Tribal governments, nor does it involve or impose any requirements that affect Indian Tribes. Accordingly, the requirements of Executive Order 13175, entitled ''Consultation and Coordination

with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), do not apply to this final rule.

G. Executive Order 13045

This action is not subject to Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because this is not an economically significant regulatory action as defined by Executive Order 12866, and this action does not address environmental health or safety risks disproportionately affecting children.

H. Executive Order 13211

This action is not subject to Executive Order 13211, entitled ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001), because this action is not expected to affect energy supply, distribution, or use and because this action is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

In addition, since this action does not involve any technical standards, NTTAA section 12(d) (15 U.S.C. 272 note), does not apply to this action.

J. Executive Order 12898

This action does not entail special considerations of environmental justice related issues as delineated by Executive Order 12898, entitled ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629, February 16, 1994).

X. Congressional Review Act (CRA)

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Part 9

Environmental protection, Reporting and recordkeeping requirements.

40 CFR Part 721

Environmental protection, Chemicals, Hazardous substances, Reporting and recordkeeping requirements.

Dated: September 3, 2013.

Maria J. Doa,

Director, Chemical Control Division, Office of Pollution Prevention and Toxics.

Therefore, 40 CFR parts 9 and 721 are amended as follows:

PART 9—[AMENDED]

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

Authority: 7 U.S.C. 135 *et seq.,* 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.,* 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.,* 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

■ 2. In § 9.1, add the following section in numerical order under the undesignated center heading ''Significant New Uses of Chemical Substances'' to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB Control No.
* * * * *	
Significant New Uses of Chemical Substances	
* * * * *	
721.10515	2070–0012
* * * * *	

* * * * *

PART 721—[AMENDED]

■ 3. The authority citation for part 721 continues to read as follows:

Authority: 15 U.S.C. 2604, 2607, and 2625(c).

■ 4. Add § 721.10515 to subpart E to read as follows:

§ 721.10515 Partially fluorinated alcohol substituted glycols (generic).

(a) *Chemical substance and significant new uses subject to reporting.* (1) The chemical substances identified generically as partially fluorinated alcohol substituted glycols (PMN P–10–58, P–10–59, and P–10–60) are subject to reporting under this section for the significant new uses described in paragraph (a)(2) of this section.

(2) The significant new uses are:

(i) *Industrial, commercial, and consumer activities.* Requirements as specified in § 721.80(k) (manufacture and import of the PMN substances according to the chemical synthesis and composition section of the TSCA section 5(e) consent order, including analysis, reporting, and limitations of maximum impurity levels of certain fluorinated impurities; manufacture and import of P–10–58 and P–10–59 only as intermediates for the manufacture of P–10–60), and (q).

(ii) [Reserved]

(b) *Specific requirements.* The provisions of subpart A of this part apply to this section except as modified by this paragraph.

(1) *Recordkeeping.* Recordkeeping requirements as specified in § 721.125(a), (b), (c), and (i) are applicable to manufacturers, importers, and processors of these substances, except the recordkeeping requirements for § 721.125(b) and (c) do not apply to importers or processors when any one of the substances are contained in a formulation at less than 3 weight percent.

(2) *Limitations or revocation of certain notification requirements.* The provisions of § 721.185 apply to this section.

(3) *Determining whether a specific use is subject to this section.* The provisions of § 721.1725(b)(1) apply to paragraph (a)(2)(i) of this section.

[FR Doc. 2013–22112 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2012–0590; FRL–9395–4]

Prometryn; Pesticide Tolerances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes tolerances for residues of prometryn in or on succulent snap bean, dill oil, fresh dillweed leaves, and dried dillweed leaves. This regulation additionally removes the established tolerance with regional restrictions on dill, since it is superseded by the tolerance on fresh dillweed leaves. Interregional Research Project Number 4 (IR–4) requested these tolerances under the Federal Food, Drug, and Cosmetic Act (FFDCA).

DATES: This regulation is effective September 11, 2013. Objections and requests for hearings must be received on or before November 12, 2013, and

must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of the **SUPPLEMENTARY INFORMATION**).

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2012–0590, is available at *http://www.regulations.gov* or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), EPA West Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPP Docket is (703) 305–5805. Please review the visitor instructions and additional information about the docket available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Lois Rossi, Registration Division (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (703) 305–7090; email address: *RDFRNotices@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

B. How can I get electronic access to other related information?

You may access a frequently updated electronic version of EPA's tolerance regulations at 40 CFR part 180 through the Government Printing Office's e-CFR site at *http://www.ecfr.gov/cgi-bin/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.* To access the OCSPP test guidelines referenced in this document electronically, please go to *http://www.epa.gov/ocspp* and select ''Test Methods and Guidelines.

C. How can I file an objection or hearing request?

Under FFDCA section 408(g), 21 U.S.C. 346a, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. You must file your objection or request a hearing on this regulation in accordance with the instructions provided in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket ID number EPA–HQ–OPP–2012–0590 in the subject line on the first page of your submission. All objections and requests for a hearing must be in writing, and must be received by the Hearing Clerk on or before November 12, 2013. Addresses for mail and hand delivery of objections and hearing requests are provided in 40 CFR 178.25(b).

In addition to filing an objection or hearing request with the Hearing Clerk as described in 40 CFR part 178, please submit a copy of the filing (excluding any Confidential Business Information (CBI)) for inclusion in the public docket. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice. Submit the non-CBI copy of your objection or hearing request, identified by docket ID number EPA–HQ–OPP–2012–0590, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be CBI or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *http://www.epa.gov/dockets/contacts.html.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *http://www.epa.gov/dockets.*

II. Summary of Petitioned-For Tolerance

In the **Federal Register** of September 28, 2012 (77 FR 59578) (FRL–9364–6), EPA issued a document pursuant to FFDCA section 408(d)(3), 21 U.S.C. 346a(d)(3), announcing the filing of a pesticide petition (PP 2E8053) by IR–4, 500 College Rd. East, Suite 201W, Princeton, NJ 08540. The petition requested that 40 CFR 180.222 be amended by establishing tolerances for residues of the herbicide prometryn, 2,4-bis(isopropylamino)-6-methylthio-*s*-triazine, in or on bean, snap, succulent at 0.05 parts per million (ppm); bean, forage at 0.09 ppm; dill, leaves at 0.3 ppm; dill, dried leaves at 1.1 ppm; and dill, oil at 1.3 ppm. That document referenced a summary of the petition prepared on behalf of IR–4 by Syngenta Crop Protection, the registrant, which is available in the docket, *http://www.regulations.gov.* There were no comments received in response to the notice of filing.

Based upon review of the data supporting the petition, EPA has corrected the commodity terminology for certain proposed tolerances and has revised the tolerance expression for all commodities. The reasons for these changes are explained in Unit IV.C.

III. Aggregate Risk Assessment and Determination of Safety

Section 408(b)(2)(A)(i) of FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is ''safe.'' Section 408(b)(2)(A)(ii) of FFDCA defines ''safe'' to mean that ''there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.'' This includes exposure through drinking water and in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) of FFDCA requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance and to ''ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue. . . .''

Consistent with FFDCA section 408(b)(2)(D), and the factors specified in FFDCA section 408(b)(2)(D), EPA has reviewed the available scientific data and other relevant information in support of this action. EPA has sufficient data to assess the hazards of and to make a determination on aggregate exposure for prometryn including exposure resulting from the tolerances established by this action. EPA's assessment of exposures and risks associated with prometryn follows.

A. Toxicological Profile

EPA has evaluated the available toxicity data and considered its validity, completeness, and reliability as well as the relationship of the results of the

studies to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children.

In the subchronic oral feeding study in mice, prometryn caused decreased body weight (bwt) and/or mortality at doses that exceeded the limit dose. In chronic oral toxicity studies, effects primarily occurred only at the highest doses tested for dogs, rats, and mice, though the dog is considered the most sensitive species. Effects in the dog included degenerative hepatic changes, renal tubule degeneration, and bone marrow atrophy. In developmental studies with prometryn, fetal effects were observed primarily at the highest doses tested and in the presence of maternal toxicity. In rats, decreased bwt, decreased food consumption, and clinical signs of toxicity were observed in dams. Decreased fetal bwt and incomplete ossification of sternebrae and metacarpals were observed at the same dose in offspring. In rabbits, maternal effects included decreased food consumption and an increased incidence of resorptions, abortions, and post-implantation loss; these effects corresponded with a decreased number of viable litters and live fetuses at the same dose. In the 2-generation rat reproductive study, decreased food consumption, bwt, and bwt gain were observed in parental animals, and decreased bwts were observed in offspring at the same dose.

Preliminary review of the rat acute and subchronic neurotoxicity studies reveals lower mean total and/or ambulatory locomotor activity counts noted for both sexes on the first day of treatment in the acute study, and no signs of neurotoxicity in the subchronic study. In the immunotoxicity study, there was a decreased humoral response in the sheep red blood cell assay. No evidence of local or systemic toxicity was observed in a 21-day dermal toxicity study in rabbits.

In a combined chronic toxicity and carcinogenicity study in rats, effects included decreased bwt, bwt gains, and renal toxicity, exhibited as mineralized concretions. In a carcinogenicity study in mice, the only effect was decreased bwt gain. Prometryn has been classified with ''evidence of non-carcinogenicity for humans'' based on the lack of oncogenic effects at any dose in both rats and mice. Prometryn was determined to be non-mutagenic and non-clastogenic in *in vitro* and *in vivo* genotoxicity assays.

Specific information on the studies received and the nature of the adverse effects caused by prometryn as well as the no-observed-adverse-effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL) from the toxicity studies can be found at *http://www.regulations.gov* in document: ''Prometryn: Human-Health Risk Assessment for the Proposed Uses on Snap Bean and Dill.'' pp. 32–34 in docket ID number EPA–HQ–OPP–2012–0590.

B. Toxicological Points of Departure/Levels of Concern

Once a pesticide's toxicological profile is determined, EPA identifies toxicological points of departure (POD) and levels of concern to use in evaluating the risk posed by human exposure to the pesticide. For hazards that have a threshold below which there is no appreciable risk, the toxicological POD is used as the basis for derivation of reference values for risk assessment. PODs are developed based on a careful analysis of the doses in each toxicological study to determine the dose at which no adverse effects are observed (the NOAEL) and the lowest dose at which adverse effects of concern are identified (the LOAEL). Uncertainty/safety factors are used in conjunction with the POD to calculate a safe exposure level—generally referred to as a population-adjusted dose (PAD) or a reference dose (RfD), and a safe margin of exposure (MOE). For non-threshold risks, the Agency assumes that any amount of exposure will lead to some degree of risk. Thus, the Agency estimates risk in terms of the probability of an occurrence of the adverse effect expected in a lifetime. For more information on the general principles EPA uses in risk characterization and a complete description of the risk assessment process, see *http://www.epa.gov/pesticides/factsheets/riskassess.htm.*

A summary of the toxicological endpoints for prometryn used for human risk assessment is shown in Table 1 of this unit.

TABLE 1—SUMMARY OF TOXICOLOGICAL DOSES AND ENDPOINTS FOR PROMETRYN FOR USE IN HUMAN HEALTH RISK ASSESSMENT

Exposure/scenario	Point of departure and uncertainty/safety factors	RfD, PAD, LOC for risk assessment	Study and toxicological effects
Acute dietary (Females 13–49 years of age).	NOAEL = 12 mg/kg/day UF_A = 10x UF_H = 10x FQPA SF = 1x.	Acute RfD = 0.12 mg/kg/day, aPAD = 0.12 mg/kg/day.	Developmental toxicity (rabbit) LOAEL = 72 mg/kg/day based on increased incidence of resorptions, abortions, and post-implantation loss leading to decreased number of viable litters and live fetuses.
Acute dietary (General population including infants and children).	No effects attributable to a single exposure were identified for the general population, including infants and children. Therefore, a dose and endpoint were not selected for this exposure scenario.		
Chronic dietary (All populations)	NOAEL = 3.75 mg/kg/day UF_A = 10x UF_H = 10x FQPA SF = 1x.	Chronic RfD = 0.04 mg/kg/day, cPAD = 0.04 mg/kg/day.	Chronic toxicity (dog; dietary) LOAEL = 37.5 mg/kg/day based on degenerative hepatic changes, renal tubule degeneration, and bone marrow atrophy.

TABLE 1—SUMMARY OF TOXICOLOGICAL DOSES AND ENDPOINTS FOR PROMETRYN FOR USE IN HUMAN HEALTH RISK ASSESSMENT—Continued

Exposure/scenario	Point of departure and uncertainty/safety factors	RfD, PAD, LOC for risk assessment	Study and toxicological effects
Cancer (Oral, dermal, inhalation) ..	Classified as ''evidence of non-carcinogenicity for humans.''		

FQPA SF = Food Quality Protection Act Safety Factor. LOAEL = lowest-observed-adverse-effect-level. LOC = level of concern. mg/kg/day = milligram/kilogram/day. NOAEL = no-observed-adverse-effect-level. PAD = population adjusted dose (a = acute, c = chronic). RfD = reference dose. UF = uncertainty factor. UF_A = extrapolation from animal to human (interspecies). UF_H = potential variation in sensitivity among members of the human population (intraspecies).

C. Exposure Assessment

1. *Dietary exposure from food and feed uses.* In evaluating dietary exposure to prometryn, EPA considered exposure under the petitioned-for tolerances as well as all existing prometryn tolerances in 40 CFR 180.222. EPA assessed dietary exposures from prometryn in food as follows:

i. *Acute exposure.* Quantitative acute dietary exposure and risk assessments are performed for a food-use pesticide, if a toxicological study has indicated the possibility of an effect of concern occurring as a result of a 1-day or single exposure. Such effects were identified for prometryn for females 13–49 years old, the only acute population subgroup of concern for this assessment. In estimating acute dietary exposure, EPA used Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM–FCID) Version 3.16, which uses food consumption data from the U.S. Department of Agriculture's (USDA's) National Health and Nutrition Examination Survey, ''What We Eat in America'' (NHANES/WWEIA) from 2003 through 2008. As to residue levels in food, EPA used tolerance-level residues for all commodities, 100 percent crop treated (PCT) estimates, and utilized DEEM version 7.81 default processing factors when appropriate.

ii. *Chronic exposure.* In conducting the chronic dietary exposure assessment EPA used the food consumption data from the USDA's 2003–2008 NHANES/WWEIA. As to residue levels in food, EPA used tolerance-level residues for all commodities, assumed 100 PCT, and utilized DEEM default processing factors when appropriate.

iii. *Cancer.* Based on the data summarized in Unit III.A., EPA has concluded that prometryn does not pose a cancer risk to humans. Therefore, a dietary exposure assessment for the purpose of assessing cancer risk is unnecessary.

iv. *Anticipated residue and PCT information.* EPA did not use anticipated residue or PCT information in the dietary assessment for prometryn. Tolerance level residues and 100 PCT were assumed for all food commodities.

2. *Dietary exposure from drinking water.* The Agency used screening level water exposure models in the dietary exposure analysis and risk assessment for prometryn in drinking water. These simulation models take into account data on the physical, chemical, and fate/transport characteristics of prometryn. Further information regarding EPA drinking water models used in pesticide exposure assessment can be found at *http://www.epa.gov/oppefed1/models/water/index.htm.*

Based on the First Index Reservoir Screening Tool (FIRST) and Screening Concentration in Ground Water (SCI–GROW) models, the estimated drinking water concentrations (EDWCs) of prometryn for surface waters are expected to be 377.4 parts per billion (ppb) for acute exposures and 157.9 ppb for chronic exposures. For ground water, the EDWC is expected to be 23.2 ppb for acute and chronic exposures.

Modeled estimates of drinking water concentrations were directly entered into the dietary exposure model. The water concentration values of 377.4 ppb and 157.9 ppb were used to assess the contribution of drinking water for the acute and chronic dietary risk assessments, respectively.

3. *From non-dietary exposure.* The term ''residential exposure'' is used in this document to refer to non-occupational, non-dietary exposure (e.g., for lawn and garden pest control, indoor pest control, termiticides, and flea and tick control on pets). Prometryn is not registered for any specific use patterns that would result in residential exposure.

4. *Cumulative effects from substances with a common mechanism of toxicity.* Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider ''available information'' concerning the cumulative effects of a particular pesticide's residues and ''other substances that have a common mechanism of toxicity.''

Prometryn is a triazine, and certain triazine pesticides were identified as a common mechanism group (CMG) by EPA in a 2002 paper entitled, ''The Grouping of a Series of Triazine Pesticides Based on a Common Mechanism of Toxicity.'' However, prometryn was excluded from the triazine CMG because it does not share the toxicity profile of the CMG triazines. Therefore, for the purposes of this action, EPA is assuming that prometryn does not have a common mechanism of toxicity with other substances, and prometryn does not produce a toxic metabolite known to be produced by other substances. For information regarding EPA's efforts to determine which substances have a common mechanism of toxicity and to evaluate the cumulative effects of such substances, see EPA's Web site at *http://www.epa.gov/pesticides/cumulative.*

D. Safety Factor for Infants and Children

1. *In general.* Section 408(b)(2)(C) of FFDCA provides that EPA shall apply an additional tenfold (10X) margin of safety for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the database on toxicity and exposure unless EPA determines based on reliable data that a different margin of safety will be safe for infants and children. This additional margin of safety is commonly referred to as the Food Quality Protection Act Safety Factor (FQPA SF). In applying this provision, EPA either retains the default value of 10X, or uses a different additional safety factor when reliable data available to EPA support the choice of a different factor.

2. *Prenatal and postnatal sensitivity.* Developmental toxicity studies in rats and rabbits and a 2-generation reproduction study in rats are available to assess potential fetal and offspring sensitivity to prometryn, and there is no evidence of increased quantitative prenatal susceptibility following prometryn exposure in these studies. In the 2-generation rat reproductive study, no evidence of toxicity to the

reproductive organs was observed and the effects that were observed in the offspring (decreased bwt) occurred at the same dose as those observed in parental animals (decreased food consumption, bwt, and bwt gain). In both rats and rabbit developmental toxicity studies, fetal and offspring effects occurred at maternal/parental doses. Fetal effects in rats included decreased fetal bwt, incomplete ossification of sternebrae and metacarpals observed at the same dose as maternal toxicity, including decreased bwt, decreased food consumption, and clinical signs of toxicity. In rabbits, fetal effects included a decreased number of viable litters and live fetuses noted in the presence of decreased food consumption and an increased incidence of resorptions, abortions, and post-implantation loss in maternal rabbits.

3. *Conclusion.* EPA has determined that reliable data show the safety of infants and children would be adequately protected if the FQPA SF were reduced to 1X. That decision is based on the following findings:

i. The toxicity database for prometryn is complete. In the last final rule for prometryn, published in the **Federal Register** of December 18, 2009 (74 FR 67104) (FRL–8801–8), immunotoxicity (OCSPP Guideline 870.7800) and acute and subchronic neurotoxicity (OCSPP Guideline 870.6200) studies were reported as data gaps required in 40 CFR part 158 for pesticide registration. These studies were recently submitted to the Agency and are pending formal review. Preliminary review suggests that these studies will not affect the endpoints selected for assessing the dietary risks of concern. In the immunotoxicity study, although there was a decreased humoral response in the sheep red blood cell assay, this effect is not expected to impact the risk assessment. This effect was observed at the limit dose (1,044 milligrams/kilogram/day (mg/kg/day) and is at least one order of magnitude higher than the effects used for the acute and chronic dietary endpoints causing a very low level of concern. The preliminary review of the acute neurotoxicity study shows some indication of neurotoxicity; however, since the POD chosen for risk assessment is lower than the dose that caused the observed effects in this study, it is thus considered protective of these effects. Additionally, there were no signs of neurotoxicity observed in the subchronic neurotoxicity study. Therefore, there is no need for a developmental neurotoxicity study or additional UFs to account for neurotoxicity.

ii. There is no evidence that prometryn results in increased susceptibility in young rats in the 2-generation reproduction study. The effects noted in *in utero* rats and rabbits in the prenatal developmental studies do not indicate increased susceptibility because:

a. The effects are well characterized.

b. Clear NOAELs were established.

c. The developmental rabbit study is being used in endpoint selection.

iii. There are no residual uncertainties identified in the exposure databases. The dietary food exposure assessments were performed based on 100 PCT and tolerance-level residues. EPA made conservative (protective) assumptions in the ground and surface water modeling used to assess exposure to prometryn in drinking water. These assessments will not underestimate the exposure and risks posed by prometryn.

E. Aggregate Risks and Determination of Safety

EPA determines whether acute and chronic dietary pesticide exposures are safe by comparing aggregate exposure estimates to the aPAD and cPAD. For linear cancer risks, EPA calculates the lifetime probability of acquiring cancer given the estimated aggregate exposure. Short-term, intermediate-term, and chronic-term risks are evaluated by comparing the estimated aggregate food, water, and residential exposure to the appropriate PODs to ensure that an adequate MOE exists.

1. *Acute risk.* Using the exposure assumptions discussed in this unit for acute exposure, the acute dietary exposure from food and water to prometryn will occupy 17% of the aPAD for females 13–49 years old, the population subgroup identified as having a potential acute exposure.

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that chronic exposure to prometryn from food and water will utilize 23% of the cPAD for all infants less than 1-year old, the population group receiving the greatest exposure. There are no residential uses for prometryn.

3. *Short-term and Intermediate-term risks.* Short-term and intermediate-term aggregate exposures take into account short-term and intermediate-term residential exposure plus chronic exposure to food and water (considered to be a background exposure level). Short-term and intermediate-term adverse effects were identified; however, prometryn is not registered for any use patterns that would result in short-term or intermediate-term residential exposures. Short-term and intermediate-term risk is assessed based on short-term and intermediate-term residential exposure plus chronic dietary exposure. Because there are no short-term or intermediate-term residential exposures and chronic dietary exposure has already been assessed under the appropriately protective cPAD (which is at least as protective as the POD used to assess short-term risk), no further assessment of short-term or intermediate-term risks are necessary, and EPA relies on the chronic dietary risk assessment for evaluating short-term and intermediate-term risks for prometryn.

4. *Aggregate cancer risk for U.S. population.* Based on the lack of evidence of carcinogenicity in two adequate rodent carcinogenicity studies, prometryn is not expected to pose a cancer risk to humans.

5. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result to the general population, or to infants and children from aggregate exposure to prometryn residues.

IV. Other Considerations

A. Analytical Enforcement Methodology

An enforcement methodology (gas chromatography/flame photometric detection/sulfur (GC/FPD/S)), Method AG–559, is available to enforce the tolerance expression.

The method may be requested from: Chief, Analytical Chemistry Branch, Environmental Science Center, 701 Mapes Rd., Ft. Meade, MD 20755–5350; telephone number: (410) 305–2905; email address: *residuemethods@epa.gov.*

B. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4). The Codex Alimentarius is a joint United Nations Food and Agriculture Organization/World Health Organization food standards program, and it is recognized as an international food safety standards-setting organization in trade agreements to which the United States is a party. EPA may establish a tolerance that is different from a Codex MRL; however, FFDCA section 408(b)(4) requires that

EPA explain the reasons for departing from the Codex level.

The Codex has not established a MRL for prometryn.

C. Revisions to Petitioned-For Tolerances

Based on the data submitted with the petition, EPA has determined that the proposed tolerance in or on bean, forage at 0.09 ppm is not necessary. The Agency determined that this tolerance level is not necessary because bean, forage is not a significant livestock feed item. Additionally, the Agency revised the proposed commodity terminology for dill, leaves to dillweed, fresh leaves and dill, dried leaves to dillweed, dry leaves in order to reflect the correct commodity terminology. Finally, the Agency has revised the tolerance expression to clarify:

1. That, as provided in FFDCA section 408(a)(3), the tolerance covers metabolites and degradates of prometryn not specifically mentioned.

2. That compliance with the specified tolerance levels is to be determined by measuring only the specific compounds mentioned in the tolerance expression.

V. Conclusion

Therefore, tolerances are established for residues of prometryn, 2,4-bis(isopropylamino)-6-methylthio-*s*-triazine, in or on bean, snap, succulent at 0.05 ppm; dill, oil at 1.3 ppm; dillweed, fresh leaves at 0.30 ppm; and dillweed, dried leaves at 1.1 ppm. This regulation additionally removes the established tolerance with regional restrictions in or on dill at 0.3 ppm.

VI. Statutory and Executive Order Reviews

This final rule establishes tolerances under FFDCA section 408(d) in response to a petition submitted to the Agency. The Office of Management and Budget (OMB) has exempted these types of actions from review under Executive Order 12866, entitled ''Regulatory Planning and Review'' (58 FR 51735, October 4, 1993). Because this final rule has been exempted from review under Executive Order 12866, this final rule is not subject to Executive Order 13211, entitled ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) or Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997). This final rule does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), nor does it require any special considerations under Executive Order 12898, entitled ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629, February 16, 1994).

Since tolerances and exemptions that are established on the basis of a petition under FFDCA section 408(d), such as the tolerance in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*), do not apply.

This final rule directly regulates growers, food processors, food handlers, and food retailers, not States or tribes, nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4). As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the States or tribal governments, or on the distribution of power and responsibilities among the various levels of government or between the Federal Government and Indian Tribes. Thus, the Agency has determined that Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999) and Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000) do not apply to this final rule. In addition, this final rule does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1501 *et seq.*).

This action does not involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA) (15 U.S.C. 272 note).

VII. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: August 29, 2013.

Lois Rossi,

Director, Registration Division, Office of Pesticide Programs.

Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. In § 180.222:

■ a. Revise the introductory text of paragraph (a).

■ b. Add alphabetically ''bean, snap, succulent,'' ''dill, oil,'' ''dillweed, dried leaves,'' and ''dillweed, fresh leaves'' to the table in paragraph (a).

■ c. Remove and reserve paragraph (c).

■ d. Revise the introductory text of paragraph (d).

The amendments read as follows:

§ 180.222 Prometryn; tolerances for residues.

(a) *General.* Tolerances are established for residues of the herbicide prometryn, including its metabolites and degradates, in or on the commodities in the following table. Compliance with the tolerance levels specified in the following table is to be determined by measuring only prometryn, 2,4-bis(isopropylamino)-6-methylthio-*s*-triazine, in or on the following raw agricultural commodities:

Commodity	Parts per million
Bean, snap, succulent	0.05
* * * * *	
Dill, oil	1.3
Dillweed, dried leaves	1.1
Dillweed, fresh leaves	0.30
* * * * *	

* * * * *

(c) *Tolerances with regional exemptions.* [Reserved]

(d) *Indirect or inadvertent residues.* Tolerances are established for indirect or inadvertent residues of the herbicide prometryn, including its metabolites and degradates, in or on the commodities in the following table. Compliance with the tolerance levels specified in the following table is to be determined by measuring only prometryn, 2,4-bis(isopropylamino)-6-

methylthio-*s*-triazine, in or on the following raw agricultural commodities.

* * * * *

[FR Doc. 2013–22107 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2013–0284; FRL–9397–6]

Polyurethane-Type Polymers; Tolerance Exemption

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes an exemption from the requirement of a tolerance for residues of polymers produced by the reaction of either 1,6-hexanediisocyanate; 2,4,4-trimethyl-1,6-hexanediisocyanate; 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (isophoronediisocyanate); 4,4′-methylene-bis-1,1′-cyclohexanediisocyanate; 4,4′-methylene-bis-1,1′ benzyldiisocyanate; or 1,3-bis-(2-isocyanatopropan-2-yl)benzene with polyethyleneglycol and end-capped with one or a mixture of more than one of octanol, decanol, dodecanol, tetradecanol, hexadecanol, octadecanol, and octadec-9-enol or polyethyleneglycol ethers of octanol, decanol, dodecanol, tetradecanol, hexadecanol, octadecanol, and octadec-9-enol (also known as polyurethane-type polymers), when used as an inert ingredient in a pesticide chemical formulation. Syngenta Crop Protection, LLC submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA), requesting an exemption from the requirement of a tolerance. This regulation eliminates the need to establish a maximum permissible level for residues of polyurethane-type polymers on food or feed commodities.

DATES: This regulation is effective September 11, 2013. Objections and requests for hearings must be received on or before November 12, 2013, and must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of the **SUPPLEMENTARY INFORMATION**).

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2013–0284, is available at *http://www.regulations.gov* or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), EPA West Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPP Docket is (703) 305–5805. Please review the visitor instructions and additional information about the docket available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Lois Rossi, Registration Division (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (703) 305–7090; email address: *RDFRNotices@*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

B. How can I get electronic access to other related information?

You may access a frequently updated electronic version of 40 CFR part 180 through the Government Printing Office's e-CFR site at *http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.*

C. Can I file an objection or hearing request?

Under FFDCA section 408(g), 21 U.S.C. 346a, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. You must file your objection or request a hearing on this regulation in accordance with the instructions provided in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket ID number EPA–HQ–OPP–2013–0284 in the subject line on the first page of your submission. All objections and requests for a hearing must be in writing, and must be received by the Hearing Clerk on or before November 12, 2013. Addresses for mail and hand delivery of objections and hearing requests are provided in 40 CFR 178.25(b).

In addition to filing an objection or hearing request with the Hearing Clerk as described in 40 CFR part 178, please submit a copy of the filing (excluding any Confidential Business Information (CBI)) for inclusion in the public docket. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice. Submit the non-CBI copy of your objection or hearing request, identified by docket ID number EPA–HQ–OPP–2013–0284, by one of the following methods.

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be CBI or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *http://www.epa.gov/dockets/contacts.html.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *http://www.epa.gov/dockets.*

II. Background and Statutory Findings

In the **Federal Register** of July 19, 2013 (78 FR 43117) (FRL–9392–9), EPA issued a notice pursuant to FFDCA section 408, 21 U.S.C. 346a, announcing the receipt of a pesticide petition (IN–10553) filed by Syngenta Crop Protection, LLC, P.O. Box 18300, Greensboro, NC 27419–8300. The petition requested that 40 CFR 180.960 be amended by establishing an exemption from the requirement of a tolerance for residues of polyurethane-type polymers produced by the reaction of either 1,6-hexanediisocyanate; 2,4,4-trimethyl-1,6-hexanediisocyanate; 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (isophoronediisocyanate); 4,4′-methylene-bis-1,1′-cyclohexanediisocyanate; 4,4′-methylene-bis-1,1′ benzyldiisocyanate; or 1,3-bis-(2-isocyanatopropan-2-yl)benzene with polyethylenglycol and end-capped with one or a mixture of more than one of octanol, decanol, dodecanol, tetradecanol, hexadecanol,

octadecanol, and octadec-9-enol or polyethyleneglycol ethers of octanol, decanol, dodecanol, tetradecanol, hexadecanol, octadecanol, and octadec-9-enol (CAS Reg. Nos. 1161844–26–3, 1161844–30–9, 1161844–43–4, 1161844–51–4, 1161844–53–6, 693252–31–2, 162993–60–4, and 630102–86–2). That notice included a summary of the petition prepared by the petitioner and solicited comments on the petitioner's request. One comment was received for a notice of filing from a private citizen who opposed the authorization to sell any pesticide that leaves a residue on food. The Agency understands the commenter's concerns and recognizes that some individuals believe that no residue of pesticides should be allowed. However, under the existing legal framework provided by FFDCA section 408, EPA is authorized to establish pesticide tolerances or exemptions where persons seeking such tolerances or exemptions have demonstrated that the pesticide meets the safety standard imposed by the statute.

Section 408(c)(2)(A)(i) of FFDCA allows EPA to establish an exemption from the requirement for a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the exemption is ''safe.'' Section 408(c)(2)(A)(ii) of FFDCA defines ''safe'' to mean that ''there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.'' This includes exposure through drinking water and use in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) of FFDCA requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing an exemption from the requirement of a tolerance and to ''ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue . . .'' and specifies factors EPA is to consider in establishing an exemption.

III. Risk Assessment and Statutory Findings

EPA establishes exemptions from the requirement of a tolerance only in those cases where it can be shown that the risks from aggregate exposure to pesticide chemical residues under reasonably foreseeable circumstances will pose no appreciable risks to human health. In order to determine the risks from aggregate exposure to pesticide inert ingredients, the Agency considers the toxicity of the inert in conjunction with possible exposure to residues of the inert ingredient through food, drinking water, and through other exposures that occur as a result of pesticide use in residential settings. If EPA is able to determine that a finite tolerance is not necessary to ensure that there is a reasonable certainty that no harm will result from aggregate exposure to the inert ingredient, an exemption from the requirement of a tolerance may be established.

Consistent with FFDCA section 408(b)(2)(D), EPA has reviewed the available scientific data and other relevant information in support of this action and considered its validity, completeness and reliability and the relationship of this information to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children. In the case of certain chemical substances that are defined as polymers, the Agency has established a set of criteria to identify categories of polymers expected to present minimal or no risk. The definition of a polymer is given in 40 CFR 723.250(b) and the exclusion criteria for identifying these low-risk polymers are described in 40 CFR 723.250(d). Polyurethane-type polymers conforms to the definition of a polymer given in 40 CFR 723.250(b) and meets the following criteria that are used to identify low-risk polymers.

1. The polymer is not a cationic polymer nor is it reasonably anticipated to become a cationic polymer in a natural aquatic environment.

2. The polymer does contain as an integral part of its composition the atomic elements carbon, hydrogen, and oxygen.

3. The polymer does not contain as an integral part of its composition, except as impurities, any element other than those listed in 40 CFR 723.250(d)(2)(ii).

4. The polymer is neither designed nor can it be reasonably anticipated to substantially degrade, decompose, or depolymerize.

5. The polymer is manufactured or imported from monomers and/or reactants that are already included on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory or manufactured under an applicable TSCA section 5 exemption.

6. The polymer is not a water absorbing polymer with a number average molecular weight (MW) greater than or equal to 10,000 daltons.

Additionally, the polymer also meets as required the following exemption criteria specified in 40 CFR 723.250(e).

7. The polymer's number average MW of 21,000 to 26,000 is greater than or equal to 10,000 daltons. The polymer contains less than 2% oligomeric material below MW 500 and less than 5% oligomeric material below MW 1,000.

Thus, polyurethane-type polymers meets the criteria for a polymer to be considered low risk under 40 CFR 723.250. Based on its conformance to the criteria in this unit, no mammalian toxicity is anticipated from dietary, inhalation, or dermal exposure to polyurethane-type polymers.

IV. Aggregate Exposures

For the purposes of assessing potential exposure under this exemption, EPA considered that polyurethane-type polymers could be present in all raw and processed agricultural commodities and drinking water, and that non-occupational non-dietary exposure was possible. The number average MW of polyurethane-type polymers is 21,000 to 26,000 daltons. Generally, a polymer of this size would be poorly absorbed through the intact gastrointestinal tract or through intact human skin. Since polyurethane-type polymers conform to the criteria that identify a low-risk polymer, there are no concerns for risks associated with any potential exposure scenarios that are reasonably foreseeable. The Agency has determined that a tolerance is not necessary to protect the public health.

V. Cumulative Effects From Substances With a Common Mechanism of Toxicity

Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider ''available information'' concerning the cumulative effects of a particular pesticide's residues and ''other substances that have a common mechanism of toxicity.''

EPA has not found polyurethane-type polymers to share a common mechanism of toxicity with any other substances, and polyurethane-type polymers do not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has assumed that polyurethane-type polymers do not have a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see EPA's Web site at *http://www.epa.gov/pesticides/cumulative.*

VI. Additional Safety Factor for the Protection of Infants and Children

Section 408(b)(2)(C) of FFDCA provides that EPA shall apply an additional tenfold margin of safety for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the database unless EPA concludes that a different margin of safety will be safe for infants and children. Due to the expected low toxicity of polyurethane-type polymers, EPA has not used a safety factor analysis to assess the risk. For the same reasons the additional tenfold safety factor is unnecessary.

VII. Determination of Safety

Based on the conformance to the criteria used to identify a low-risk polymer, EPA concludes that there is a reasonable certainty of no harm to the U.S. population, including infants and children, from aggregate exposure to residues of polyurethane-type polymers.

VIII. Other Considerations

A. Existing Exemptions From a Tolerance

There are no existing exemptions from a tolerance for polyurethane-type polymers.

B. Analytical Enforcement Methodology

An analytical method is not required for enforcement purposes since the Agency is establishing an exemption from the requirement of a tolerance without any numerical limitation.

C. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4). The Codex Alimentarius is a joint United Nations Food and Agriculture Organization/World Health Organization food standards program, and it is recognized as an international food safety standards-setting organization in trade agreements to which the United States is a party. EPA may establish a tolerance that is different from a Codex MRL; however, FFDCA section 408(b)(4) requires that EPA explain the reasons for departing from the Codex level.

The Codex has not established a MRL for polyurethane-type polymers.

IX. Conclusion

Accordingly, EPA finds that exempting residues of polyurethane-type polymers from the requirement of a tolerance will be safe.

X. Statutory and Executive Order Reviews

This final rule establishes a tolerance under FFDCA section 408(d) in response to a petition submitted to the Agency. The Office of Management and Budget (OMB) has exempted these rules from review under Executive Order 12866, entitled ''Regulatory Planning and Review'' (58 FR 51735, October 4, 1993). Because this final rule has been exempted from review under Executive Order 12866, this final rule is not subject to Executive Order 13211, entitled ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) or Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997). This final rule does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), nor does it involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA) (15 U.S.C. 272 note).

Since tolerances and exemptions that are established on the basis of a petition under FFDCA section 408(d), such as the tolerance in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*), do not apply.

This final rule directly regulates growers, food processors, food handlers, and food retailers, not States or tribes, nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4). As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the States or tribal governments, or on the distribution of power and responsibilities among the various levels of government or between the Federal Government and Indian Tribes, or otherwise have any unique impacts on local governments. Thus, the Agency has determined that Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999) and Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000) do not apply to this final rule. In addition, this final rule does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1501 *et seq.*).

Although this action does not require any special considerations under Executive Order 12898, entitled ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629, February 16, 1994), EPA seeks to achieve environmental justice, the fair treatment and meaningful involvement of any group, including minority and/or low-income populations, in the development, implementation, and enforcement of environmental laws, regulations, and policies. As such, to the extent that information is publicly available or was submitted in comments to EPA, the Agency considered whether groups or segments of the population, as a result of their location, cultural practices, or other factors, may have atypical or disproportionately high and adverse human health impacts or environmental effects from exposure to the pesticide discussed in this document, compared to the general population. One comment was received for a notice of filing from a private citizen who opposed the authorization to sell any pesticide that leaves a residue on food. The Agency understands the commenter's concerns and recognizes that some individuals believe that no residue of pesticides should be allowed. However, under the existing legal framework provided by FFDCA section 408, EPA is authorized to establish pesticide tolerances or exemptions where persons seeking such tolerances or exemptions have demonstrated that the pesticide meets the safety standard imposed by the statute.

XI. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: August 29, 2013.

Lois Rossi,

Director, Registration Division, Office of Pesticide Programs.

Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. In § 180.960, alphabetically add the following entry to the table to read as follows:

§ 180.960 Polymers; exemptions from the requirement of a tolerance.

* * * * *

Polymer	CAS No.
* * * * * * *	
Polymers produced by the reaction of either 1,6-hexanediisocyanate; 2,4,4-trimethyl-1,6-hexanediisocyanate; 5-isocyanato-1-(isocyanatomethyl)-fxsp0;1,3,3fxsp0;-trimethylcyclohexane (isophoronediisocyanate); 4,4′-methylene-bis-1,1′-cyclohexanediisocyanate; 4,4′-methylene-bis-1,1′ benzyldiisocyanate; or 1,3-bis-(2-isocyanato propan-2-yl)benzene with polyethylene glycol and end-capped with one or a mixture of more than one of octanol, decanol, dodecanol, tetradecanol, hexadecanol, octadecanol, and octadec-9-enol or polyethyleneglycol ethers of octanol, decanol, dodecanol, tetradecanol, hexadecanol, octadecanol, and octadec-9-enol, minimum number average molecular weight (in amu), 20,000.	1161844–26–3, 1161844–30–9, 1161844–43–4, 1161844–51–4, 1161844–53–6, 693252–31–2, 162993–60–4, 630102–86–2.
* * * * * * *	

[FR Doc. 2013–22104 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2013–0381; FRL–9396–9]

Styrene, Copolymers with Acrylic Acid and/or Methacrylic Acid; Tolerance Exemption

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation revises an exemption from the requirement of a tolerance for residues of styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200 when used as an inert ingredient in a pesticide chemical formulation to include the monomer lauryl methacrylate. Toxcel, (7140 Heritage Village Plaza, Gainesville, VA 20156) on behalf of Akzo Nobel Surface Chemistry, (909 Mueller Ave., Chattanooga, TN 37406) submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA), requesting an exemption from the requirement of a tolerance.

DATES: This regulation is effective September 11, 2013. Objections and requests for hearings must be received on or before November 12, 2013, and must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of the **SUPPLEMENTARY INFORMATION**).

ADDRESSES: EPA has established a docket for this action under docket identification (ID) number EPA–HQ–OPP–2013–0381. All documents in the docket are listed in the docket index available at *http://www.regulations.gov.* Although listed in the index, some information is not publicly available, e.g., 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 in the electronic docket at *http://www.regulations.gov,* or, if only available in hard copy, at the OPP Regulatory Public Docket in Rm. S–4400, One Potomac Yard (South Bldg.), 2777 S. Crystal Dr., Arlington, VA. The Docket Facility is open from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The Docket Facility telephone number is (703) 305–5805.

FOR FURTHER INFORMATION CONTACT: Lois Rossi, Registration Division (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 305–7090; email address: *RDFRNOTICE@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. Potentially affected entities may include, but are not limited to:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How can I get electronic access to other related information?

You may access a frequently updated electronic version of 40 CFR part 180 through the Government Printing

Office's e-CFR site at *http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.*

C. Can I file an objection or hearing request?

Under FFDCA section 408(g), 21 U.S.C. 346a, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. You must file your objection or request a hearing on this regulation in accordance with the instructions provided in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket ID number EPA–HQ–OPP–2013–0381 in the subject line on the first page of your submission. All objections and requests for a hearing must be in writing, and must be received by the Hearing Clerk on or before November 12, 2013. Addresses for mail and hand delivery of objections and hearing requests are provided in 40 CFR 178.25(b).

In addition to filing an objection or hearing request with the Hearing Clerk as described in 40 CFR part 178, please submit a copy of the filing that does not contain any CBI for inclusion in the public docket. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice. Submit a copy of your non-CBI objection or hearing request, identified by docket ID number EPA–HQ–OPP–2013–0381 by one of the following methods.

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the on-line instructions for submitting comments.
- *Mail:* Office of Pesticide Programs (OPP) Regulatory Public Docket (7502P), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001.
- *Delivery:* OPP Regulatory Public Docket (7502P), Environmental Protection Agency, Rm. S–4400, One Potomac Yard (South Bldg.), 2777 S. Crystal Dr., Arlington, VA. Deliveries are only accepted during the Docket Facility's normal hours of operation (8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays). Special arrangements should be made for deliveries of boxed information. The Docket Facility telephone number is (703) 305–5805.

II. Background and Statutory Findings

In the **Federal Register** of July 19, 2013 (78 FR 43118) (FRL–9392–9), EPA issued a notice pursuant to section 408 of FFDCA, 21 U.S.C. 346a, announcing the receipt of a pesticide petition ((PP) IN–10551)) filed by Toxcel, (7140 Heritage Village Plaza, Gainesville, VA 20156) on behalf of Akzo Nobel Surface Chemistry, (909 Mueller Ave., Chattanooga, TN 37406). The petition requested that 40 CFR 180.960 be amended by revising an exemption from the requirement of a tolerance for residues of styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200 to include the monomer lauryl methacrylate. That notice included a summary of the petition prepared by the petitioner and solicited comments on the petitioner's request. The Agency received one comment from a private citizen who opposed the authorization to sell any pesticide that leaves a residue on food. The Agency understands the commenter's concerns and recognizes that some individuals believe that no residue of pesticides should be allowed. The Agency has a large database which indicates that compounds of this nature will not cause residues which exceed the Agency's level of concern. Under the existing legal framework provided by section 408 of the Federal Food, Drug and Cosmetic Act (FFDCA) EPA is authorized to establish pesticide tolerances or exemptions where persons seeking such tolerances or exemptions have demonstrated that the pesticide meets the safety standard imposed by the statute.''

Section 408(c)(2)(A)(i) of FFDCA allows EPA to establish an exemption from the requirement for a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the exemption is ''safe.'' Section 408(c)(2)(A)(ii) of FFDCA defines ''safe'' to mean that ''there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.'' This includes exposure through drinking water and use in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) of FFDCA requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing an exemption from the requirement of a tolerance and to ''ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue . . .'' and specifies factors EPA is to consider in establishing an exemption.

III. Risk Assessment and Statutory Findings

EPA establishes exemptions from the requirement of a tolerance only in those cases where it can be shown that the risks from aggregate exposure to pesticide chemical residues under reasonably foreseeable circumstances will pose no appreciable risks to human health. In order to determine the risks from aggregate exposure to pesticide inert ingredients, the Agency considers the toxicity of the inert in conjunction with possible exposure to residues of the inert ingredient through food, drinking water, and through other exposures that occur as a result of pesticide use in residential settings. If EPA is able to determine that a finite tolerance is not necessary to ensure that there is a reasonable certainty that no harm will result from aggregate exposure to the inert ingredient, an exemption from the requirement of a tolerance may be established.

Consistent with FFDCA section 408(b)(2)(D), EPA has reviewed the available scientific data and other relevant information in support of this action and considered its validity, completeness and reliability and the relationship of this information to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children. In the case of certain chemical substances that are defined as polymers, the Agency has established a set of criteria to identify categories of polymers expected to present minimal or no risk. The definition of a polymer is given in 40 CFR 723.250(b) and the exclusion criteria for identifying these low-risk polymers are described in 40 CFR 723.250(d). Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate, and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; (hereafter referred to as styrene, copolymers with acrylic

acid and/or methacrylic acid) conforms to the definition of a polymer given in 40 CFR 723.250(b) and meets the following criteria that are used to identify low-risk polymers.

1. The polymer is not a cationic polymer nor is it reasonably anticipated to become a cationic polymer in a natural aquatic environment.

2. The polymer does contain as an integral part of its composition the atomic elements carbon, hydrogen, and oxygen.

3. The polymer does not contain as an integral part of its composition, except as impurities, any element other than those listed in 40 CFR 723.250(d)(2)(ii).

4. The polymer is neither designed nor can it be reasonably anticipated to substantially degrade, decompose, or depolymerize.

5. The polymer is manufactured or imported from monomers and/or reactants that are already included on the TSCA Chemical Substance Inventory or manufactured under an applicable TSCA section 5 exemption.

6. The polymer is not a water absorbing polymer with a number average molecular weight (MW) greater than or equal to 10,000 daltons. Additionally, the polymer also meets as required the following exemption criteria specified in 40 CFR 723.250(e).

7. The polymer's number average MW of 1,200 daltons is greater than 1,000 and less than 10,000 daltons. The polymer contains less than 10% oligomeric material below MW 500 and less than 25% oligomeric material below MW 1,000 and the polymer does not contain any reactive functional groups. Thus, styrene, copolymers with acrylic acid and/or methacrylic acid meets the criteria for a polymer to be considered low risk under 40 CFR 723.250. Based on its conformance to the criteria in this unit, no mammalian toxicity is anticipated from dietary, inhalation, or dermal exposure to styrene, copolymers with acrylic acid and/or methacrylic acid.

IV. Aggregate Exposures

For the purposes of assessing potential exposure under this exemption, EPA considered that styrene, copolymers with acrylic acid and/or methacrylic acid could be present in all raw and processed agricultural commodities and drinking water, and that non-occupational non-dietary exposure was possible. The number average MW of styrene, copolymers with acrylic acid and/or methacrylic acid is 1,200 daltons. Generally, a polymer of this size would be poorly absorbed through the intact gastrointestinal tract or through intact human skin. Since styrene, copolymers with acrylic acid and/or methacrylic acid conforms to the criteria that identify a low-risk polymer, there are no concerns for risks associated with any potential exposure scenarios that are reasonably foreseeable. The Agency has determined that a tolerance is not necessary to protect the public health.

V. Cumulative Effects From Substances With a Common Mechanism of Toxicity

Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider ''available information'' concerning the cumulative effects of a particular pesticide's residues and ''other substances that have a common mechanism of toxicity.''

EPA has not found styrene, copolymers with acrylic acid and/or methacrylic acid to share a common mechanism of toxicity with any other substances, and styrene, copolymers with acrylic acid and/or methacrylic acid does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has assumed that styrene, copolymers with acrylic acid and/or methacrylic acid does not have a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see EPA's Web site at *http://www.epa.gov/pesticides/cumulative.*

VI. Additional Safety Factor for the Protection of Infants and Children

Section 408(b)(2)(C) of FFDCA provides that EPA shall apply an additional tenfold margin of safety for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the data base unless EPA concludes that a different margin of safety will be safe for infants and children. Due to the expected low toxicity of styrene, copolymers with acrylic acid and/or methacrylic acid, EPA has not used a safety factor analysis to assess the risk. For the same reasons the additional tenfold safety factor is unnecessary.

VII. Determination of Safety

Based on the conformance to the criteria used to identify a low-risk polymer, EPA concludes that there is a reasonable certainty of no harm to the U.S. population, including infants and children, from aggregate exposure to residues of styrene, copolymers with acrylic acid and/or methacrylic acid.

VIII. Other Considerations

A. Existing Exemptions From a Tolerance

There are no existing exemptions from the requirement of a tolerance.

B. Analytical Enforcement Methodology

An analytical method is not required for enforcement purposes since the Agency is establishing an exemption from the requirement of a tolerance without any numerical limitation.

C. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4). The Codex Alimentarius is a joint U.N. Food and Agriculture Organization/World Health Organization food standards program, and it is recognized as an international food safety standards-setting organization in trade agreements to which the United States is a party. EPA may establish a tolerance that is different from a Codex MRL; however, FFDCA section 408(b)(4) requires that EPA explain the reasons for departing from the Codex level.

The Codex has not established a MRL for styrene, copolymers with acrylic acid and/or methacrylic acid.

IX. Conclusion

Accordingly, EPA finds that exempting residues of styrene, copolymers with acrylic acid and/or methacrylic acid from the requirement of a tolerance will be safe.

X. Statutory and Executive Order Reviews

This final rule establishes a tolerance under section 408(d) of FFDCA in response to a petition submitted to the Agency. The Office of Management and Budget (OMB) has exempted these rules from review under Executive Order 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993). Because this final rule has been exempted from review under Executive Order 12866, this final rule is not subject to Executive Order 13211, entitled *Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use* (66 FR 28355, May 22, 2001) or Executive Order 13045, entitled *Protection of Children from*

Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997). This final rule does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.,* nor does it involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note).

Since tolerances and exemptions that are established on the basis of a petition under section 408(d) of FFDCA, such as the tolerance in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) do not apply.

This final rule directly regulates growers, food processors, food handlers, and food retailers, not States or tribes, nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of section 408(n)(4) of FFDCA. As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the States or tribal governments, or on the distribution of power and responsibilities among the various levels of government or between the Federal Government and Indian tribes, or otherwise have any unique impacts on local governments. Thus, the Agency has determined that Executive Order 13132, entitled *Federalism* (64 FR 43255, August 10, 1999) and Executive Order 13175, entitled *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249, November 9, 2000) do not apply to this final rule. In addition, this final rule does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Public Law 104–4).

Although this action does not require any special considerations under Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629, February 16, 1994), EPA seeks to achieve environmental justice, the fair treatment and meaningful involvement of any group, including minority and/or low-income populations, in the development, implementation, and enforcement of environmental laws, regulations, and policies. As such, to the extent that information is publicly available or was submitted in comments to EPA, the Agency considered whether groups or segments of the population, as a result of their location, cultural practices, or other factors, may have atypical or disproportionately high and adverse human health impacts or environmental effects from exposure to the pesticide discussed in this document, compared to the general population. The Agency received one comment from a private citizen who opposed the authorization to sell any pesticide that leaves a residue on food. The Agency understands the commenter's concerns and recognizes that some individuals believe that no residue of pesticides should be allowed. The Agency has a large database which indicates that compounds of this nature will not cause residues which exceed the Agency's level of concern. Under the existing legal framework provided by section 408 of the Federal Food, Drug and Cosmetic Act (FFDCA), EPA is authorized to establish pesticide tolerances or exemptions where persons seeking such tolerances or exemptions have demonstrated that the pesticide meets the safety standard imposed by the statute.

XI. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of this rule in the **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: August 29, 2013.

Lois Rossi,

Director, Registration Division, Office of Pesticide Programs.

Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. In § 180.960, the table is amended by revising the entry for ''styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200'' to read as follows:

§ 180.960 Polymers; exemptions from the requirement of a tolerance.

* * * * *

Polymer	CAS No.
* * * * * * *	
Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, hydroxyethyl acrylate, and/or lauryl methacrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1200.	None.
* * * * * * *	

[FR Doc. 2013–21919 Filed 9–10–13; 8:45 am]
BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 20, 22, 24, 27, and 90

[WT Docket No. 10–4; FCC 13–21]

Signal Booster Rules

AGENCY: Federal Communications Commission.

ACTION: Final rule; announcement of effective date.

SUMMARY: In this document, the Office of Management and Budget (OMB) has approved, for a period of three years, the information collections associated with the Commission's rules to improve wireless coverage through the use of signal boosters. This notice is consistent with the *Report and Order,* which stated that the Commission would publish a document in the **Federal Register** announcing the effective date of those rules.

DATES: The amendments to §§ 1.1307(b)(1), 20.3,20.21(a)(2), 20.21(a)(5), 20.21(e)(2), 20.21(e)(8)(i)(G), 20.21(e)(9)(i)(H), 20.21(f), 20.21(h), 22.9, 24.9, 27.9, 90.203(q), 90.219(b)(1)(i), 90.219(d)(5), and 90.219(e)(5), published at 78 FR 21555, April 11, 2013, are effective September 11, 2013.

FOR FURTHER INFORMATION CONTACT: For additional information, please contact Joyce Jones, Mobility Division, Wireless Telecommunications Bureau, at (202) 418–1327, or email: *joyce.jones@fcc.gov*.

SUPPLEMENTARY INFORMATION: This document announces that, on August 21, 2013, OMB approved, for a period of three years, the new information collection requirements contained in the Commission's *Report and Order,* FCC 13–21, and released on February 20, 2013, in WT Docket No. 10–4, regarding Signal Boosters.

Synopsis

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507), the Commission is notifying the public that it received OMB approval on August 21, 2013, for the information collection requirements contained in the modifications to the Commission's rules in 47 CFR parts 1, 20, 22, 24, 27, and 90. Under 5 CFR part 1320, an agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. The OMB control number is 3060–1189. The foregoing notice is required by the Paperwork Reduction Act of 1995, Public Law 104–13, October 1, 1995, and 44 U.S.C. 3507.

The total annual reporting burdens and costs for the respondents are as follows:

OMB Control Number: 3060–1189.

OMB Approval Date: August 21, 2013.

Expiration Date: August 31, 2016.

Title: Sections 1.1307(a), 20.3, 20.21(a)(2), 20.21(a)(5), 20.21(e)(2), 20.21(e)(8)(i)(G), 20.21(e)(9)(i)(H),20.21(f), 20.21(h), 90.203, 90.219(b)(1)(i), 90.219(d)(5) and 90.219(e)(5) of the Commission's rules concerning Signal Boosters.

Form No.: Not applicable.

Number of Respondents/Responses: 634,595.

Estimated Time per Response: .5 to 40 hours.

Total Annual Burden: 324,370 hours.

Total Annual Cost: $232,986.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this collection of information is contained in Sections 4(i), 303(g), 303(r), and 332(a) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(g), 303(r), 332(a).

Nature and Extent of Confidentiality: There is a need for confidentiality with respect to individuals who register with their wireless carriers. Pursuant to 47 U.S.C. 222(h)(1)(A) and part 64 of the Commission's rules, 47 CFR 64.2001 et.seq., telecommunications carriers are required to protect Customer Proprietary Network Information (CPNI).

Privacy Act: The information collection associated with the registration requirement contained in *Section 20.21(a)(2)* of the Commission's rules affects individuals or households; thus, there are impacts under the Privacy Act. However, the government is not directly collecting this information and the R&O directs carriers to protect the information to the extent it is considered CPNI.

Needs and Uses

Provider Reporting Requirement: In order to facilitate review of wireless providers' behavior regarding Consumer Signal Boosters, the R&O requires that on March 1, 2015, and March 1, 2016, all nationwide wireless providers publicly indicate their status regarding consent for each Consumer Signal Booster that has received FCC certification as listed in a Public Notice to be released by the Wireless Telecommunications Bureau 30 days prior to each reporting date. For each listed Consumer Signal Booster, wireless providers should publicly indicate whether they (1) consent to use of the device; (2) do not consent to use of the device; or (3) are still considering whether or not they will consent to the use of the device.

Registration Requirements

Section 20.21(a)(2)—The rules require signal booster operators to register Consumer Signal Boosters, existing and new, with their serving wireless providers prior to operation. This is a mandatory requirement to continue or begin operation of a Consumer Signal Booster. The registration requirement will aid in interference resolution and facilitate provider control over Consumer Signal Boosters.

As noted on the Form OMB 83–I, this information collection affects individuals or households; thus, there are impacts under the Privacy Act. However, the government is not directly collecting this information and the R&O directs carriers to protect the information to the extent it is considered CPNI.

Section 20.21(h)—By March 1, 2014, all providers who voluntarily consent to the use of Consumer Signal Boosters on their networks must establish a free registration system for their subscribers. At a minimum, providers must collect (1) The name of the Consumer Signal Booster owner and/or operator, if different individuals; (2) the make, model, and serial number of the device; (3) the location of the device; and (4) the date of initial operation. Otherwise, the Commission permits providers to develop their own registration systems to facilitate provider control and interference resolution, providers should collect only such information that is reasonably related to achieving these dual goals. Wireless providers may determine how to collect such information and how to keep it up-to-date.

Section 90.219(d)(5)—This rule requires operators of part 90 Class B signal boosters to register these devices in a searchable on-line database that will be maintained and operated by the Wireless Telecommunications Bureau via delegated authority from the Commission. The Commission believes this will be a valuable tool to resolve interference should it occur.

Labeling Requirements

Sections 20.21(a)(5), 20.21(f), 90.219(e)(5)—In order to avoid consumer confusion and provide consumers with needed information, the Commission adopted labeling requirements for Consumer and Industrial Signal Boosters. Consumer Signal Boosters must be labeled to identify the device as a ''consumer'' device and make the consumer aware

that the device must be registered; may only be operated with the consent of the consumer's wireless provider; may only be operated with approved antennas and cables; and that E911 communications may be affected for calls served by using the device. Industrial Signal Boosters must include a label stating that the device is not a consumer device, is designed for installation by FCC licensees or a qualified installer, and the operator must have a FCC license or consent of a FCC licensee to operate the device. Accordingly, all signal boosters marketed on or after March 1, 2014, must include the advisories (1) In on-line point-of-sale marketing materials; (2) in any print or on-line owner's manual and installation instructions; (3) on the outside packaging of the device; and (4) on a label affixed to the device. Part 90 signal boosters marketed or sold on or after March 1, 2014, must include a label stating that the device is not a consumer device; the operator must have a FCC license or consent of a FCC licensee to operate the device; the operator must register Class B signal boosters; and unauthorized use may result in significant forfeitures.

Section 1.1307(b)(1)—Radiofrequency (RF). This rule requires that a label is affixed to the transmitting antenna that provides adequate notice regarding potential RF safety hazards and references the applicable FCC-adopted limits for RF exposure.

Certification Requirements

Sections 20.3, 20.21(e)(2), 20.21(e)(8)(i)(G), 20.21(e)(9)(i)(H), 90.203—These rules, in conjunction with the R&O, require that signal booster manufacturers demonstrate that they meet the new technical specifications using the existing and unchanged equipment authorization application, including submitting a technical document with the application for FCC equipment authorization that shows compliance of all antennas, cables and/or coupling devices with the requirements of § 20.21(e). The R&O further provides that manufacturers must make certain certifications when applying for device certification. Manufacturers must provide an explanation of all measures taken to ensure that the technical safeguards designed to inhibit harmful interference and protect wireless networks cannot be deactivated by the user. The R&O requires that manufacturers of Provider-Specific Consumer Signal Boosters may only be certificated with the consent of the licensee so the manufacturer must certify that it has obtained such consent as part of the equipment certification process. The R&O also requires that if a manufacturer claims that a device will not affect E911 communications, the manufacturer must certify this claim during the equipment certification process. **Note:** The ''application for equipment'' certification requirements are met under OMB Control Number 3060–0057, FCC Form 731.

Antenna Kitting Documentation Requirement

Sections 20.21(e)(8)(i)(G), 20.21(e)(9)(i)(H)—The rules require that all consumer boosters must be sold with user manuals specifying all antennas and cables that meet the requirements of this section.

Part 90 Licensee Consent Documentation Requirement

Section 90.219(b)(1)(i)—This rule requires that non-licensees seeking to operate part 90 signal boosters must obtain the express consent of the licensee(s) of the frequencies for which the device or system is intended to amplify. The rules further require that such consent must be maintained in a recordable format that can be presented to a FCC representative or other relevant licensee investigating interference.

The Commission will use the information collected from the provider reporting requirement to assess providers' treatment of Consumer Signal Boosters, including the level of consumer access. This information will inform the Commission's decision whether it is necessary to revisit the Consumer Signal Booster authorization mechanism. The provider-based registration requirement will facilitate licensee control over Consumer Signal Boosters, help providers rapidly resolve interference issues, and assist in consumer outreach. The labeling and marketing requirements will inform signal booster operators of their legal responsibilities, facilitate coordination with providers, and assist in interference prevention. The part 90 registration requirement will help resolve interference should it occur. The RF labeling requirement will inform consumers about the potential RF safety hazards and references the applicable FCC-adopted limits for RF exposure. The certification requirements will ensure that manufacturers comply with our new technical rules for Consumer and Industrial Signal Boosters. The antenna kitting documentation requirement will aid consumers in the correct installation and use of their devices so as to mitigate interference. The consent documentation requirement will ensure that signal booster operators have the proper authority to operate their devices.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 2013–22121 Filed 9–10–13; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket Number FWS–HQ–ES–2013–0055; FXES111809F2070B6]

RIN 1018–AY76

Endangered and Threatened Wildlife and Plants; Listing the Southern White Rhino (Ceratotherium simum simum) as Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Interim rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service or USFWS), determine to list the southern white rhino (*Ceratotherium simum simum*) as threatened under the authority of section 4(e) of the Endangered Species Act of 1973, as amended (Act), due to the similarity in appearance with the endangered Javan (*Rhinoceros sondaicus*), Sumatran (*Dicerorhinos sumatrensis*), Indian (*Rhinoceros unicornis*), black (*Diceros bicornis*) and northern white rhino (*Ceratotherium simum cottoni*). Differentiating between the horns and other products made from the southern white rhino and the endangered Javan, Sumatran, Indian, black, and northern white rhino is difficult for law enforcement, decreasing their ability to enforce and further the provisions and policies of the Act. This similarity of appearance has resulted in the documented trade of listed rhinoceros species, often under the guise of being the unprotected southern white rhinoceros, and this difficulty in distinguishing between the rhino species protected under the Act and the southern white rhino constitutes an additional threat to all endangered rhinoceros species. The determination that the southern white rhino should be treated as threatened due to similarity of appearance will substantially facilitate law enforcement actions to protect and conserve all endangered rhino species.

DATES: This rule becomes effective on September 11, 2013. We will accept comments received or postmarked on or before October 11, 2013. The reasons for

this accelerated implementation and for making this rule effective less than 30 days after publication in the **Federal Register** are described below in the section titled ''Need for Interim Rule.''

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

- *Federal eRulemaking Portal: http://www.regulations.gov*. Follow instructions for submitting comments to Docket No. FWS–HQ–ES–2013–0055.
- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: [FWS–HQ–ES–2013–0055]; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

FOR FURTHER INFORMATION CONTACT: Janine Van Norman, Chief, Branch of Foreign Species, Endangered Species Program, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 420, Arlington, VA 22203; telephone 703–358–2171; facsimile 703–358–1735. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Public Comments

You may submit your comments and materials concerning this rule by one of the methods listed in the **ADDRESSES** section. We will not accept comments sent by email or fax or to an address not listed in the **ADDRESSES** section. If you submit a comment via *http://www.regulations.gov,* your entire comment—including your personal identifying information—will be posted on the Web site. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy comments on *http://www.regulations.gov*.

Executive Summary

Purpose of the Regulatory Action: We are listing the southern white rhino (*Ceratotherium simum simum*) as threatened under the ''similarity of appearance'' provisions of the Endangered Species Act of 1973, as amended (Act). Horns and other products made from this species and other rhinoceros species listed as endangered under the Act are difficult for law enforcement to distinguish, which makes it difficult for law enforcement personnel to enforce and further the provisions and policies of the Act. The determination that the southern white rhino should be treated as threatened due to similarity of appearance will substantially facilitate law enforcement actions to protect and conserve all endangered rhino species.

Major Provisions of the Regulatory Action: This action is authorized by the Endangered Species Act of 1973 (Act), as amended, 16 U.S.C. 1531 et seq. We are amending subpart B of chapter I, title 50 of the Code of Federal Regulations § 17.11(h), by adding the southern white rhinoceros to the List of Endangered and Threatened Wildlife due to a similarity of appearance.

Background

Poaching and the illegal trade in rhinoceros horn pose serious threats to all rhinoceros species worldwide. A significant increase in demand for rhinoceros horn for medicine in southeast and east Asia, notably Vietnam and China, is the primary factor driving the trade (Cavaliere 2010, unpaginated; Milliken et al. 2009, p. 9; Robinson 2009, p. 3; Mills 1997, p. 1). Rhino horn has historically been utilized in traditional Chinese medicine (TCM) for a wide variety of ailments, including fever, convulsions, and delirium (Cavaliere 2010, unpaginated; Bell & Simmonds 2006, p. 15; Mills 1997, p. 2; But *et al.* 1990, p. 158; Laurie 1978, p. 2). In 1981, China became a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and due to international pressures, China enacted the *Notice Promulgated by the State Council on the Prohibition of Trade in Rhinoceros Horn and Tiger Bone* in 1993, which banned domestic and international trade in rhino horn and tiger bone, including derivatives and their use in TCM pharmacopeia (CITES n.d., unpaginated; Mills 1997, pp. 3–4). Since then, the use of rhino horns for medicinal purposes has been widely discouraged by TCM practitioners (Huang L. 2011, p. 2; Robinson 2009, p. 5). Despite a lack of scientific evidence supporting the medicinal properties of rhino horn, a recent resurgence of interest has occurred throughout Asia for its purported value as a cancer treatment (Gwin 2012, unpaginated; Rivera & Thomas 2012, unpaginated). Although this rumor has been widely repudiated by the western scientific and medical community as well as by the TCM community, this rumor has contributed to the increased demands on the illegal market and has thus promoted the illegal poaching of rhinos.

Another factor influencing the poaching and illegal trade of rhino horns is an increased interest and demand for libation cups and other rhino horn carvings (such as dagger handles). Traditionally, libation cups and dagger handles carved out of rhino horn have held historic and symbolic significance in Chinese and Middle Eastern cultures (Vigne & Martin 2000, pp. 91, 98; Martin 1990, p. 13). Additionally, some mention has been made of libation cups having anti-poisoning properties (Groves and Leslie 2011, p. 203; Lang 2011, unpaginated; Laurie 1978, p. 2).

According to the United Nations Office on Drugs and Crime (UNODC), rhino horn has emerged in the black market as a rare and valuable commodity with street prices equal to those of gold, at roughly USD $65,000 per kilogram (UNODC 2012, p. 5). In southern Africa, this growing market demand is fueling dramatic increases in rhino poaching. In Europe, multiple thefts of rhino horns from antique dealers, auction houses, art galleries, private collectors, zoos, museums, taxidermists, and game reserves have been documented (USFWS Office of Law Enforcement (OLE) pers. comm. 2012; Viscardi 2012, p. 10; Europol 2011, p. 1). In some instances, physical assaults have occurred (Viscardi 2012, p. 10). Since 2007, more than 65 stolen horns have been reported (Shaw 2012, p. 4). FWS sources have reported that poachers are increasingly well-connected in the field and in consumer countries; they are equipped with GPS units, cell phones, and weapons, and appear to be working for syndicates that equip them with clothes, vehicles, and detailed information on rhino distribution and rhino behavior. Rhino horns move rapidly across international borders, evading detection through well-resourced, organized, politically powerful syndicates (USFWS 9: M. Gadd, unpubl. document 2011; Milliken 2009, p. 4). This transition from ordinary poachers to well-resourced, transnational organized crime groups has created additional challenges for law enforcement personnel (UNODC 2012, pp.1, 6).

In the United States, OLE has observed a dramatic increase in demand for rhino horns. The OLE has information that these horns are being funneled to Southeast Asia to meet regional demand. In 2010, the Service's OLE arrested two Irish nationals engaged in the unlawful trade in rhinoceros horns. These individuals, who were later convicted, had traveled from Europe to the United States to procure and smuggle rhino horns for the illegal trade. In 2012, the OLE, in coordination with several other agencies, confiscated 37 rhino horns and a number of carved rhino horn

products (U.S. Department of Justice 2012, unpaginated).

Previous Federal Actions

Under the Endangered Species Conservation Act of 1969, the predecessor to the Act, the Javan (*Rhinoceros sondaicus*), Sumatran (*Dicerorhinos sumatrensis*), and northern white (*Ceratotherium simum cottoni*) rhinos were listed as endangered, effective June 2, 1970 [35 FR 8491–8498]. The Indian rhino was also later listed as endangered under the Endangered Species Conservation Act of 1969, effective Dec. 2, 1970 [35 FR 18319–18322]. In 1974, the Javan, Sumatran, and northern white rhinos were subsequently included on the Federal List of Endangered and Threatened Wildlife as endangered species under the Act. The black rhino was listed as endangered under the Act, effective August 16, 1980 [45 FR 47352–47354, July 14, 1980]. Currently, the southern white rhino is the only subspecies of rhinoceros not listed under the Act. On January 17, 2012, the OLE requested that the southern white rhino be listed as a threatened species based on the similarity of appearance provisions of section 4(e) of the Act and our implementing regulations at 50 CFR 17.50.

Species Overview

Rhinoceroses occur in Asia and Africa. Africa has two distantly related genera of rhinos, the white rhino and the black rhino. Asia is home to the Javan rhino, the Sumatran rhino, and the Indian rhino.

White Rhino *(Ceratotherium Simum)*

Species Description: Currently, two subspecies of white rhino are recognized, the southern white rhino (*Ceratotherium simum simum*) and the northern white rhino (*Ceratotherium simum cottoni*). These subspecies are distinguished primarily by geographical range differences but also maintain some morphological distinctions, including small differences in cranial measurements, teeth shape and size, and skin folding patterns (Groves *et al* 2010, pp. 3–10). White rhinos on average weigh between 1,500 to 2,400 kilograms (kg) (3,300–5,300 pounds (lb)), and have an immense body with a relatively large head, which is supported by a prominent muscular hump (Groves *et al* 2010, pp. 8, 10; Groves *et al* 1972, p. 3). Typical height at the shoulders can range from 1.71 to 1.85 meters (m) (5–6 feet (ft)), and the length of the spine can span 2.45 to 2.84 m (8–10 ft) (Groves *et al.* 2010, p. 9). The white rhino is estimated to have a lifespan of 40 to 50 years in captivity (Burnette 2011, unpaginated; Rookmaaker 1998, p. 22). A feature unique to the white rhino is its relatively broad, square-lipped mouth, which is adapted for grazing practices (Groves *et al.* 1972, p. 1). The white rhino maintains the distinction of producing the largest horns recorded, both in length and in diameter (Groves 1971, p. 250). Both the northern white rhino and the southern white rhino have two horns. The frontal horn (anterior) of the northern white rhino is the largest and averages 37 to 40 inches in length; the southern white rhinos' frontal horn is more variable and can range 37 to 79 inches. White rhinos' second horn (posterior) is smaller and may reach lengths of up to 22 inches (Rhino Resource Center (RRC) n.d.(b), unpaginated).

Geographic Range and Population:

Southern white rhino (*C. s. simum*)*:* The current combined wild and captive southern white rhino population is estimated to be 20,160 individuals (Emslie & Knight 2011, p. 8). Current southern white rhino populations within their natural range are in Botswana, Namibia, South Africa, Swaziland, and Zimbabwe. Additionally, three countries, including Uganda, Kenya, and Zambia, maintain nonnative populations (USFWS 9*:* M. Gadd, pers. comm. 2013).

Historically, the southern white rhino had a large range that included Angola, Botswana, Malawi, Mozambique, Namibia, South Africa, Sudan, Swaziland, and Zimbabwe (USFWS 9: M. Gadd, pers. comm. 2013; Emslie & Brooks 1999, pp. 9–10). This subspecies has an unusual past; in fact, the population trends have been the opposite of the trends for every other species of rhino. In 1895, this subspecies was considered extinct until a small population of less than 20 individuals was discovered in the Umfolozi-Hluhluwe region in Natal, South Africa (Emslie & Brooks 1999, p. 10). Due to increased protections, numbers began to substantially increase. By 1948, the numbers had increased to 550; by 1984, to 3,800; by 1997, the population had grown to 8,440; and the 2012 estimate is 20,160 (Emslie & Brooks 1999, p. 10; Emslie & Knight 2011, p. 8). This growth in population has been due in large part to the successful conservation efforts and anti-poaching programs established by both the South African Government and private landowners.

Northern White Rhino (*C. s. cottoni*): The northern white rhino has seen the opposite trend with regard to its population status. In 1960, the population of northern white rhinos was estimated to be 2,230; in 1984, the estimated population decreased to 15 individuals (Emslie & Brooks 1999, p. 9). This species' historical range included northwestern Uganda, southern Chad, southern Sudan, the Democratic Republic of Congo and eastern Central African Republic (Emslie & Brooks 1999, p. 7). The last known wild population of northern white rhinos were located in the Democratic Republic of the Congo; however, despite extensive searches, no live sightings have been reported since 2006, nor have signs of their presence been reported since 2007 (Emslie 2011, unpaginated). It is, therefore, likely that this species has become extinct in the wild. The last remaining captive population of four individuals was relocated from Dvur Kralove Zoo in the Czech Republic to a private sanctuary in Kenya where it is hoped that they will be able to successfully reproduce with the aid of southern white rhinos (Emslie 2011, unpaginated; Emslie & Knight 2011, p. 8).

Black Rhino *(Diceros Bicornis)*

Species Description: The black rhino weighs between 800 and 1,350 kg (1,750–3,000 lbs), stands 1.4 to 1.7 m (4.5–5.5 ft) at the shoulder, and has an average length of 3 and 3.8 m (10–12.5 ft). The average lifespan for a black rhino is between 30 and 40 years, although the oldest recorded captive individual lived to 44 years, 9 months (Rhino Resource Center (RRC) n.d.(a), unpaginated). The black rhino shares the same color as that of the white rhino; it is primarily grey-brown. Other than its smaller stature, the black rhino differs from the white rhino in its prehensile pointed hooked lip, which aids in the browsing of leaves and bushes. Like the white rhino, black rhinos have two horns; the anterior horn averages 0.5 to 1.3 m (18–52 inches) while the posterior horn can measure 0.02 to 0.55 m (1–22 inches) in length (RRC n.d.(a), unpaginated).

Geographic Range and Distribution: Worldwide, there are an estimated 4,880 black rhinos in the wild; and in 2005, 240 were reported in captivity (Emslie 2012, unpaginated; Emslie & Knight 2011, p. 8). Specific subspecies population approximations include 1,920 *D.b. bicornis,* 740 *D.b. michaeli,* and 2,220 *D.b. minor* (Emslie 2012, unpaginated). The current range of *D.b. bicornis* is restricted to Namibia and South Africa; *D.b. michaeli* is thought to be limited to Kenya and Tanzania; and *D.b. minor's* stronghold is currently South Africa, to a lesser extent Zimbabwe, with a few remaining in

Tanzania (Emslie 2012, unpaginated). Historical ranges include Cameroon, Chad, southern Sudan, Ethiopia, Somalia, Kenya, Tanzania, Namibia, Angola, Botswana, South Africa, Zimbabwe, Mozambique, Democratic Republic of Congo, Zambia, Rwanda, Swaziland, Malawi, and Uganda (Emslie & Brooks 1999, pp. 3, 5). It is believed that the population of black rhino in 1900 exceeded 100,000; reports have described them as so numerous that the governments considered them an agricultural pest. By 1980, however, the population dropped to 14,785. In 1995, the black rhino population hit an all-time low of 2,410 individuals (Emslie 2011, p. 8; Gadd 2011, p. 2; Emslie & Brooks 1999, p. 5).

Indian Rhino *(Rhinoceros Unicornis)*

Species Description: The Indian rhino is one of the three species of Asian rhino and has the largest population due to considerable conservation efforts. The Indian rhino weighs between 1,599 and 2,132 kg (3,525–4,700 lb); stands at 1.59 to 1.86 m high at the shoulder (5.2–6.1 ft); and averages 4.12 m in length (13.5 ft) (Laurie *et al.* 1983, p. 1; Groves 1982, p. 16). The Indian rhino has an estimated lifespan of 40 to 50 years. This species, along with the Javan rhino, is distinct from the African rhino species in that each individual has only one horn (Groves 1971, pp. 242–246). The length of the horn ranges from 0.2 to 0.6 m (8–24 inches) in length. The Indian rhino has a prehensile upper lip, which is used for pulling branches and leaves into its mouth; this species also consumes grasses and pulls its upper lip tight against its mouth to form a hard square lip similar to that of a cow (Groves 1982, p. 20).

Geographic Range and Distribution: The historical range of Indian rhinos once included Nepal, Bangladesh, Bhutan, Myanmar, southern China, possibly Indochina, India, and Pakistan.

The current estimated population of Indian rhinos is 2,716 individuals in India and 534 individuals in Nepal, for a total of 3,250. Their current stronghold country is India, particularly in the state of Assam wherein it is estimated the population is over 2,000; plans are in place to increase this to 3,000 by the year 2020 (Singh 2012, p. 1). The large majority of Indian rhinos occupy various national parks and are highly protected. March 2012 estimates include 2,290 rhinos in Kaziranga National Park, 93 individuals in Pabitora Wildlife Sanctuary, 100 individuals in Orang National Park, and 22 in Manas Tiger Reserve (which have been translocated from Pabitora Wildlife Sanctuary and Kaziranga National Park since 2006). Other populations in India include 42 in Gorumara National Park; 140 in Jaldapara Wildlife Sanctuary; and 29 in Dudhwa National Park. In Nepal, Chitwan National Park has an estimated 503 rhinos, Bardia National Park has reported 24 individuals, and Suklaphanta Wildlife Reserve is estimated to contain 7 individuals.

Javan Rhino *(Rhinoceros Sondaicus)*

Species Description: The Javan Rhino weighs between 1,200 and 2,280 kg (2,650–5,025 lbs), stands 1.20 to 1.70 m (3.9–5.6 ft) in height, and ranges between 3.05 and 3.44 m (10–11.3 ft.) in length (Groves 1982, p. 16). The average lifespan of the wild Javan rhino is unknown; however, records have shown a captive individual having reached the age of 21 years (Groves & Leslie 2011, p. 198). The Javan rhino has a mouth similar to that of the black rhino, with a pointed upper lip that exhibits almost prehensile abilities in browsing for leaves, shoots, and twigs of mostly woody species (Groves & Leslie 2011, p. 199). The Javan rhino has only a single anterior horn, which averages 20 to 25 cm (7.9–9.8 inches) in length. Horns primarily occur in males, although rare observations have recorded their presence in females (Regan 1987, p. 706; Groves 1982, p. 16; Groves 1971, pp. 243–246).

Geographic Range and Distribution: A single population of Javan rhino, consisting of fewer than 40 individuals, is located in Ujung Kulon National Park in Java. The individual from Cat Loc National Park in southern Vietnam was killed in 2011, most likely due to poaching as its horn had been removed (Brook 2012, p. 64; Sargent 2011, unpaginated). Historical records indicate the species' range at one time may have included Ujung Kulon, Sumatra, Borneo, Malaya, Perak, Thailand, Burma, Laos, China, Cambodia, Vietnam, India, and Bangladesh.

Sumatran Rhino *(Dicerorhinus Sumatrensis)*

Species Description: The Sumatran rhino is the smallest rhino species with a weight between 600 and 950 kg (1,300–2,000 lbs). It stands only 1 to 1.5 m in height (3–5 ft) and is 2 to 3 meters in length (6.5–9.5 ft) (RRC n.d.(d), unpaginated). Wild Sumatran rhinos are believed to have an average lifespan of 30 to 45 years; however, the oldest individual in captivity lived to 28.5 years (VanStrien *et al* 2008, unpaginated). The Sumatran rhino is the only Asian rhino to have two horns; the anterior horn measures 0.25 to 0.79 meters in length (0.83–2.58 ft), while the posterior horn is much smaller with an average length of 0.1 meters (0.25 ft). This species of rhino is distinct from other species in that it retains its incisors as well as its canine teeth (CAC 2012, unpaginated). Sumatran rhinos also have the distinction of being the hairiest rhinos, are a reddish brown color, and have tufted ears (VanStrien *et al* 2008, unpaginated; Agil 2007, p. 14).

Geographic Range and Distribution: Current population estimates of Sumatran rhinos range between a minimum of 220 and a maximum of 275 individuals; 10 are currently in captivity, although 96 have been recorded in the past 200 years. Their current range includes selected national parks throughout Indonesia, Malaysia, Sumatra, and Borneo. Some of them include Way Kambas, Bukit Barisan Selatan, Gunung Leuser, Taman Negara, and Tabin Wildlife Reserve. The historical range included Myanmar (Burma), Lao PDR, Vietnam, Thailand, Malaysia, the Indonesian islands of Sumatra and Borneo, and northeastern India. Historical population numbers and native geographic range states are estimated as many historical records failed to distinguish between Asian rhino subspecies (Van Strien *et al* 2008, unpaginated).

Horn Morphology

Rhino horn shape and color vary depending on a variety of factors. Although extensive research has been conducted and published regarding the chemical and genetic composition of rhino horns from each of these species, generally these differences cannot be detected visually by law enforcement personnel. Rhinoceros horns are similar in appearance between species and subspecies; most are homogenous in appearance, and all are composed of the protein keratin. Generally, horns range in color from tan to brown to black. Shengqing *et al* (2010) determined the color of rhinoceros horn products to be shades of brown, intact rhinoceros horn to be shades of yellow, and ground powder to be gray-white (Shengqing *et al* 2010, p. 637). According to Groves (1972), ''in wild specimens the horn is colored like the body, dark grey or even black, darker on the stem than on the base, darker in Asiatic rhinos, and darker in adults than in juveniles'' (Groves 1972, p. 239). Differences in horn size can be misleading as they depend on the age, gender, and species of the individual; additionally, horn shape is influenced by external factors such as living in captivity. Additional identification challenges arise when rhino horns are carved into libation cups, dagger handles, or other

ornaments, and such processing can make the determination of species almost impossible. Thus, only with genetic testing can individual horns be definitely linked to specific species.

Current Regulatory Mechanisms

Many range states protect their rhino populations. The primary conservation method is through the physical protection of rhinos existing in state-run conservation areas such as national parks and wildlife sanctuaries. Researchers estimate that more than seventy-five percent of African rhino populations are within these types of facilities (Emslie & Brooks 1999, p. 16). However, due to increased poaching within these protected areas, additional measures have had to be taken. Translocation has been a major component in conservation of live rhinos. For example, in Zimbabwe, vulnerable rhinos were moved to safer locations in response to poaching and other threats (Milliken *et al* 2009, p. 9). Some range states have attempted to reduce the number poached by tranquilizing rhinos and removing their horns; unfortunately, there have also been reports of poachers killing and removing even the smallest stumps from these animals. Range states and private owners have thus accumulated stockpiles of rhino horn that need to be carefully managed (Milliken *et al* 2009, pp. 10–11). Despite these conservation measures, the rate of poaching in stronghold locations, namely South Africa, has continued to rise in unprecedented rates. In South Africa, which contains approximately 80 percent of the world's rhinos, poaching levels increased from only 13 in 2007 to 448 in 2011; South Africa reported 668 rhinos poached in 2012 (Republic of South Africa 2013, unpaginated; UNODC 2012, p. 5; Milliken & Shaw 2012, p. 11).

Impacts of Poaching on Private Land Owners and Commercial Live-Rhino Operators

Private landowners have made a large contribution toward rhino conservation through private ownership and custodian agreements on behalf of range states, and account for almost 25 percent of the African rhino populations (Emslie and Brooks 1999, p. 16). These landowners and companies contribute to the conservation of rhinos through tourism, live rhino sales, and limited trophy hunting of surplus bulls and/or elder females (Emslie & Brooks 1999, p. 18). Private owners contribute roughly 20,000 sq km (4,942,110 acres) of land toward rhino conservation efforts. Due to increased poaching over the last 6 years, rhino protections costs have sharply risen. During the same time period, the prices for live rhinos have dropped 11 percent. Live rhino sales include sales of live rhinos at auction and live rhino darting activities for hunters. Privately owned populations and the overall live rhino industry are losing capital and have begun to perceive it as possibly too risky of a venture to continue (Knight 2012, pp. 12–13). The possible loss of these privately owned lands has the potential to result in overcrowding or higher population densities within protected areas (Knight 2012, pp. 12–13), which are already under siege from poachers.

CITES

On Jan. 7, 1975, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) included the Northern white, Javan, Sumatran, and Indian rhinoceros on Appendix I. Species listed as CITES' Appendix I are considered threatened with extinction which are or may be affected by trade, and international trade is permitted only under exceptional circumstances. Trade in Appendix I specimens for primarily commercial purposes is generally precluded. The black rhino was listed in Appendix II on January 7, 1975, which includes species that are not necessarily now threatened with extinction, but may become so unless trade is subject to strict regulation to avoid utilization incompatible with the species' survival. International trade in specimens (dead or live) of Appendix I and II species is authorized through a system of permits or certificates under certain circumstances. This process includes verification that trade will not be detrimental to the survival of the species in the wild, and that the material was legally acquired (*www.cites.org*).

On April 2, 1977, the black rhino was reclassified to Appendix I, and the Southern white rhino was added to Appendix I. Since 1977, the implementation of effective management techniques in several countries, most notably South Africa, increased the southern white rhino populations to a viable number. Thus, in 1995, the South African population of southern white rhino was reclassified to Appendix II for the exclusive purpose of allowing international trade in live animals to appropriate and acceptable destinations and in hunting trophies. Similarly, in 2005, the Swaziland population of southern white rhino was also listed on Appendix II for the exclusive purpose of allowing international trade in live animals to appropriate and acceptable destinations and in hunting trophies. All other specimens of southern white rhino are considered to be listed in Appendix I and are regulated under CITES as such.

Currently, all rhino species and subspecies are listed in CITES Appendix I, except the South African and Swaziland populations of southern white rhinos, which are listed as Appendix II. This listing has provided South Africa and Swaziland the ability to trade internationally in white rhino hunting trophies and in live white rhinos to appropriate and acceptable destinations. Additionally, with the adoption of Resolution Conference 13.5 in 2004, South Africa and Namibia have been permitted to export five trophy-hunted black rhinos (*D. bicornis*) annually.

Live Rhino and Rhino Horn Imports and Exports

Under Appendix II of CITES, live specimen trade is legal provided the trade is conducted with regard to ''appropriate and acceptable destinations.'' Swaziland populations have been traded as part of a project to expand base populations over the last few years (Milliken *et al.* 2009, p. 7). The discrepancies in trade volumes include some inexplicable anomalies. Between 2006 and 2009, according to CITES data, South Africa exported 193 live rhinos. However, data from importing countries indicate that at least 235 live rhinos were received from South Africa. In the case of live rhino export to China, South Africa reported exporting 61 rhinos in 2006 and 2007, while China recorded receiving 117 rhinos from South Africa during the same time (Milliken *et al.* 2009, p. 7). Rumors about rhino farming in China and campaigns to encourage the use of rhino horn resulted in South Africa putting a moratorium being placed on live rhino exportations. This resulted in a Memorandum of Understanding (MoU) between the South African Government and the Socialist Republic of Vietnam, signed in December of 2012, which promotes law enforcement coordination, increased compliance with CITES regulations, and places restrictions on trade and exportation of certain rhino products.

Poaching and the Inadequacy of Existing Regulatory Mechanisms

Trends in poaching over the last 5 years have demonstrated that current regulatory mechanisms and conservation efforts are inadequate to respond to the growing market for rhino horn products. In 2007, only 13 cases of poaching in South Africa were

documented. However, in 2010, these figures increased to 333, and in 2011, the South African Government reported poaching of 448 rhinos (Milliken and Shaw 2012, p. 11). The South African Government reported 668 rhinos poached during 2012 (Republic of South Africa 2013, unpaginated). Poachers have been increasingly advanced in their methods with the illegal misappropriation of or reuse of gaming licenses; helicopters and tranquilizer guns appropriated from veterinary facilities have also been used (Viscardi 2012, p. 10). Additional regulatory enforcement mechanisms are needed to address this escalating issue.

Facilitation of Enforcement

As explained in more detail under the section titled ''Otherwise Prohibited Activities and Permitting Requirements,'' this interim rule will apply all of the prohibitions for threatened species found at 50 CFR 17.31 to the southern white rhino. These prohibitions, under 50 CFR 17.31, would, in part, make it illegal for any person subject to the jurisdiction of the United States, to deliver, receive, carry, transport, or ship southern white rhino specimen(s) in foreign or interstate commerce, by any means whatsoever and in the course of a commercial activity; or sell or offer for sale in interstate and foreign commerce any specimen of southern white rhino.

In light of the significant demand for acquiring rhino specimens within the United States for movement into the Asian black market, extending the Act's prohibitions relating to commerce to the southern white rhino under the similarity of appearance provisions will substantially facilitate law enforcement actions to protect and conserve all listed rhino species by curtailing unauthorized commerce in endangered rhino specimens. Presently, with the southern white rhino being the only subspecies of rhino that is not listed under the Act, unauthorized commerce in listed rhino specimens within and through the United States occurs with individuals able to purposefully or accidentally misrepresent that specimens of endangered rhino are specimens of the Southern white rhino. Thus, this similarity of appearance listing will eliminate this loophole in enforcing the Act's protections for listed rhino species by extending the Act's prohibitions regarding certain commerce activities to all rhino species, unless such activities are properly authorized.

Similarity of Appearance

Under section 4(e) of the Act, the Secretary, acting through the Service, ''may, by regulation of commerce and taking, and to the extent he deems advisable, treat any species as an endangered species or threatened species even though it is not listed pursuant to section 4 of the Act if the Secretary finds that—(a) such species so closely resembles in appearance, at the point in question, a species which has been listed pursuant to such section that enforcement personnel would have substantial difficulty in attempting to differentiate between the listed and unlisted species; (b) the effect of this substantial difficulty is an additional threat to an endangered or threatened species; and (c) such treatment of an unlisted species will substantially facilitate the enforcement and further the policy of this Act.'' Due to the similarity of appearance of rhino horns, parts, and products from all rhino species, law enforcement personnel are unable to determine the species, much less the population, from which the rhino horn, part, or product was derived. When rhino horn or product is carved or modified, such as into a libation cup, the ability to make the determination of legality is further compromised. This is the primary justification for this similarity of appearance listing.

In addition, this difficulty in distinguishing a specimen of endangered rhino species from a specimen of the southern white rhino is an additional threat to the rhino species listed under the Act. The Service has information indicating that unauthorized commerce involving parts and products of listed rhino species is being conducted via the United States by persons who purposefully or accidentally misrepresent that specimens have originated from the southern white rhino. Thus, the difficulty in distinguishing endangered rhino specimens from specimens of southern white rhino is resulting in specimens of listed rhino species entering the global black market via the United States. This illegal movement of endangered rhino parts and products via the United States is contributing to the market demand for such items. With the increasing market demand for rhino parts and products and the street value of rhino horn now being roughly estimated at $65,000 per kilogram, this flourishing black market is stimulating unprecedented levels of poaching, and, indeed, this recent upsurge in rhino poaching coincides precisely with the renewed consumer demand for rhino parts and products (See discussion under ''Background'').

Lastly, as previously discussed, listing the southern white rhino pursuant to the Act's similarity of appearance provisions will facilitate the enforcement and further the policy of the Act. This action will stem an enforcement problem that has contributed to the unauthorized commerce of endangered rhino specimens from the United States, thereby ameliorating the threat to endangered rhino species from illegal trade and providing for the conservation of these species listed under the Act.

Effects of This Interim Rule

Otherwise Prohibited Activities and Permitting Requirements

Section 4(d) of the Act specifies that, for threatened species, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of the species. Under this authority, the Service has promulgated certain regulations at 50 CFR 17.31. Specifically, 50 CFR 17.31 provides that the prohibitions for endangered wildlife under 50 CFR 17.21, with the exception of 17.21(c)(5), also apply to threatened wildlife unless a special rule has been developed under section 4(d) of the ESA. The prohibitions of 50 CFR 17.31 include, among others, take, import, export, and shipment in interstate or foreign commerce in the course of a commercial activity of a threatened species.

Under the Act's similarity of appearance provisions, the Secretary may, ''to the extent he deems advisable, treat any species as an endangered species or a threatened species even though it isn't listed pursuant to section 4 of [the] Act . . .''. Furthermore, the Service's regulations implementing the Act's provisions on similarity of appearance provide that all of the regulatory provisions found at subpart D, which include the general prohibitions for threatened species, shall apply, as appropriate, to any species listed pursuant to the similarity of appearance provisions. See 50 CFR 17.51(a). Thus, exercising this discretion, the Service has determined that all of the prohibitions under 50 CFR 17.31 shall apply to the southern white rhino, which is being designated as a threatened species under the similarity of appearance provisions of section 4(e) and the Service's implementing regulations at 50 CFR 17.50. This designation due to similarity of appearance under section 4(e) of the Act, however, does not extend other protections of the Act, such as consultation requirements for Federal agencies under section 7 and the recovery planning provisions under section 4(f) that apply to species that are

listed as endangered or threatened under section 4(a).

Although the general permit provisions for threatened species are found at 50 CFR 17.32, the Service issues permits for otherwise prohibited activities involving endangered or threatened species listed due to similarity of appearance under the regulatory criteria at 50 CFR 17.52. Under 50 CFR 17.52, a permit may be issued for any otherwise prohibited activity if the applicant adequately identifies the wildlife or plant in question so as to distinguish it from any endangered or threatened wildlife or plant.

In the case of the southern white rhinoceros, the Service's criteria to issue such a permit or other authorization would consist of the permit applicant providing adequate information to document that the specimen involved in the activity is a southern white rhinoceros. Such documentation could consist of a CITES export permit issued by a country that is party to CITES, veterinarian reports, a breeder's statement, qualified appraiser's statements, or other documentation that shows the species identification and the origin of the specimen.

Further, pursuant to section 9(c)(2) of the Act, noncommercial importations into the United States of threatened species that are listed under CITES Appendix II and taken and exported in accordance with CITES are presumed not to be in violation of any provision of the Act or any regulation under the Act, provided that applicable requirements under sections 9(d), 9(e), and 9(f) are met. For southern white rhinoceros exported from South Africa or Swaziland, which are currently the only populations of southern white rhinoceros listed in Appendix II of CITES, no ESA regulatory permit for importation is required, provided that the specimen was legally exported from one of those two countries, the importation was not made in the course of a commercial activity, and other applicable requirements are met. Therefore, a sport-hunted trophy of southern white rhino, legally taken and exported from South Africa or Swaziland, would not require a separate ESA regulatory permit to import it into the United States. However, the sport-hunted trophy will still be subject to the provisions of CITES, and, therefore, a CITES Appendix II permit from the country of export will still be required. It should be noted, however, that due to the ''use after import'' restrictions under the CITES regulations (50 CFR 23.55), southern white rhinoceros imported as a sport-hunted trophy or for other noncommercial purposes could not be subsequently sold or otherwise entered into commerce.

Need for Interim Final Rule

Under section 553(b) of the Administrative Procedure Act (APA), we have good cause to find that the delay associated with public comment on a proposed rule to list the southern white rhino under the Act's similarity of appearance provisions would negatively impact the conservation of endangered rhino species listed under the Act and, therefore, is contrary to the public interest. With this action, the southern white rhino will receive immediate protections afforded to species through the regulation of commerce under the Act. This immediate protection is necessary to deter trade in currently listed rhino species that would otherwise occur via the United States during the intervening time period required to finalize a rulemaking under the APA's public notice and comment procedures. This illegal trade via the United States is contributing to a black market that continues to attract poachers, resulting in an upsurge in the unsustainable killing of endangered rhino species. In light of the critically low abundance levels and restrictive ranges of all of the rhino species currently listed under the Act, immediate measures to curtail some of the trade in rhino specimens is necessary to alleviate the pressures to the species associated with poaching for the global black market.

Based upon the rationale noted above for applying the APA's exemption to the notice and comment requirements to this rulemaking in the interest of the public, we also have good cause to waive the standard 30-day effective date for this rule consistent with section 553(d)(3) of the APA. A 30-day delay in the effective date of this rule would result in elevated levels of trafficking in parts and products of listed rhino species and in accompanying increases in poaching of endangered rhino species during the intervening time period between publication of this rule in the **Federal Register** and its date of effectiveness. If there were a 30-day delay before this published listing rule took effect, persons could seek to take advantage of the regulatory loophole caused by the similarity of appearance with the southern white rhino before this impending regulation under the Act became effective. Thus, under this scenario, the Service reasonably believes a spike in the illegal trade and poaching of endangered rhino species could occur with this delay.

While we are taking these immediate steps to protect these species, we invite public comment as set forth in **DATES** and **ADDRESSES**.

Required Determinations

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must: (a) Be logically organized; (b) use the active voice to address readers directly; (c) use clear language rather than jargon; (d) be divided into short sections and sentences; and (e) use lists and tables wherever possible. If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us page numbers and the names of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Paperwork Reduction Act (44 U.S.C. 3501, et seq.)

This rule does not contain any new collections of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act. This rule will not impose new recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. 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.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

The Service has analyzed this rule in accordance with the National Environmental Policy Act of 1969 (NEPA). The Council on Environmental Quality's (CEQ) regulations implementing NEPA, at 40 CFR 1508.4, define a ''categorical exclusion'' as a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect on the human environment. CEQ's regulations further require federal agencies to adopt NEPA procedures, including the adoption of categorical exclusions for which neither an environmental assessment nor an environmental impact statement is required, 40 CFR 1507.3. The Service has determined that

this interim rule is categorically excluded from further environmental analysis under NEPA in accordance with the Department's NEPA regulations at 43 CFR 46.210(i), which categorically excludes ''[p]olicies, directives, regulations, and guidelines: that are of an administrative, financial, legal, technical, or procedural nature . . .''. In addition, the Service has determined that none of the extraordinary circumstances listed under the Department's regulations at 43 CFR 46.215, in which a normally excluded action may have a significant environmental effect, applies to this interim rule.

References Cited

A complete list of all references cited in this interim is available on the Internet at *http://www.regulations.gov* or by contacting the person listed under **FOR FURTHER INFORMATION CONTACT.**

Author

The primary author of this interim rule is the staff of the Branch of Foreign Species, Endangered Species Program, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 420, Arlington, VA 22203 (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245; unless otherwise noted.

■ 2. Amend § 17.11(h) by adding an entry for ''Rhinoceros, southern white'' in alphabetical order under MAMMALS, to the List of Endangered and Threatened Wildlife to read as set forth below:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*		*	*	*
Rhinoceros, southern white.	*Ceratotherium simum simum.*	Botswana, South Africa, Swaziland, Zambia, Zimbabwe.	Entire	T(S/A)		N/A	N/A
*	*	*	*		*	*	*

Dated: August 2, 2013.

Dan Ashe,

Director, U.S. Fish and Wildlife Service.

[FR Doc. 2013–22132 Filed 9–10–13; 8:45 am]

BILLING CODE 4310–55–P

Proposed Rules

Federal Register
Vol. 78, No. 176
Wednesday, September 11, 2013

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

DEPARTMENT OF HOMELAND SECURITY

6 CFR Part 5

[Docket No. DHS–2013–0041]

Privacy Act of 1974: Implementation of Exemptions; Department of Homeland Security Transportation Security Administration, DHS/TSA–021, TSA Pre✓™ Application Program System of Records

AGENCY: Department of Homeland Security.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Department of Homeland Security is giving concurrent notice of a newly established system of records pursuant to the Privacy Act of 1974 for the ''Department of Homeland Security/Transportation Security Administration-021, TSA Pre✓™; Application Program System of Records'' and this proposed rulemaking. In this proposed rulemaking, the Department proposes to exempt portions of the system of records from one or more provisions of the Privacy Act because of criminal, civil, and administrative enforcement requirements.

DATES: Comments must be received on or before October 11, 2013.

ADDRESSES: You may submit comments, identified by docket number DHS–2013–0041, by one of the following methods:

- *Federal e-Rulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–343–4010.
- *Mail:* Jonathan R. Cantor, Acting Chief Privacy Officer, Privacy Office, Department of Homeland Security, Washington, DC 20528.

Instructions: All submissions received must include the agency name and docket number for this notice. All comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided.

Docket: For access to the docket to read background documents or comments received, go to *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: For general questions, please contact: Peter Pietra, TSA Privacy Officer, TSA–036, 601 South 12th Street, Arlington, VA 20598–6036; or email at *TSAprivacy@dhs.gov.* For privacy questions, please contact: Jonathan R. Cantor, (202) 343–1717, Acting Chief Privacy Officer, Privacy Office, Department of Homeland Security, Washington, DC 20528.

SUPPLEMENTARY INFORMATION:

I. Background

In accordance with the Privacy Act of 1974, 5 U.S.C. 552a, the Department of Homeland Security (DHS)/Transportation Security Administration (TSA) proposes to establish a new DHS system of records titled, ''DHS/TSA–021 TSA Pre✓™ Application Program System of Records.''

TSA is establishing this new system of records to inform the public of the collection, maintenance, dissemination, and use of records on individuals who voluntarily submit personally identifiable information to the TSA Pre✓™ Application Program. TSA will use the information provided by applicants [1] to the Program to perform a security threat assessment to identify individuals who present a low risk to transportation security. This passenger prescreening enables TSA to determine the appropriate level of security screening the passenger will receive before the passenger receives a boarding pass.

TSA Pre✓™ Application Program. TSA Pre✓™ is a passenger prescreening initiative for low risk passengers who are eligible to receive expedited screening at participating U.S. airport security checkpoints.[2] TSA Pre✓™ is one of several expedited screening initiatives that TSA is implementing. TSA Pre✓™, as well as the larger set of expedited screening initiatives, enhance aviation security by permitting TSA to better focus its limited security resources on passengers who are more likely to pose a threat to civil aviation, while also facilitating and improving the commercial aviation travel experience for the public.

TSA is implementing the TSA Pre✓™ Application Program pursuant to its authority under section 109(a)(3) of the Aviation and Transportation Security Act (ATSA), Public Law 107–71 (115 Stat. 597, 613, Nov. 19, 2001, codified at 49 U.S.C. 114 note). That section authorizes TSA to ''[e]stablish requirements to implement trusted passenger programs and use available technologies to expedite security screening of passengers who participate in such programs, thereby allowing security screening personnel to focus on those passengers who should be subject to more extensive screening.''

Members of the public who apply to the TSA Pre✓™ Application Program will be required to pay a fee. Section 540 of the DHS Appropriations Act, 2006, Public Law 109–90 (119 Stat. 2064, 2088–89, Oct. 18, 2005), authorizes TSA to establish and collect a fee for any registered traveler program by publication of a notice in the **Federal Register**. The Department of Homeland Security will issue a separate notice of the fee for the TSA Pre✓™ Application Program in the **Federal Register**.

To apply to the TSA Pre✓™ Application Program, individuals will submit biographic and biometric information to TSA. TSA will use the information to conduct a security threat assessment of law enforcement, immigration, and intelligence databases, including a fingerprint-based criminal history records check conducted through the Federal Bureau of Investigation (FBI). The results will be used by TSA to decide if an individual poses a low risk to transportation or national security. TSA will provide individuals who meet the standards of

[1] Further information on information collection can be found in Intent To Request Approval From OMB of One New Public Collection of Information: TSA Pre✓™ Trusted Traveler Program; Republication, 78 FR 45256 (July 26, 2013) (republished for technical correction).

[2] Passengers who are eligible for expedited screening through a dedicated TSA Pre✓™ lane typically will receive more limited physical screening, *e.g.,* will be able to leave on their shoes, light outerwear, and belt, to keep their laptop in its case, and to keep their 3–1–1 compliant liquids/gels bag in a carry-on. TSA Pre✓™ lanes are available at 40 airports nationwide, with additional expansion planned. See *TSA Pre✓™ Now Available at 40 Airports Nationwide: Expedited Screening Begins at Raleigh-Durham International Airport,* http://www.tsa.gov/press/releases/2013/03/28/tsa-pre%E2%9C%93%E2%84%A2-now-available-40-airports-nationwide-expedited-screening-begins.

the security threat assessment a Known Traveler Number (KTN).[3]

The list of individuals approved under the TSA Pre✓™ Application Program, including their name, date of birth, gender, and KTN, will be provided to the TSA Secure Flight passenger prescreening system.[4] The Secure Flight system will not receive other applicant information that is maintained in the TSA Pre✓™ Application Program system of records.[5]

Eligibility for the TSA Pre✓™ Application Program is within the sole discretion of TSA, which will notify individuals who are denied eligibility in writing of the reasons for the denial. If initially deemed ineligible, applicants will have an opportunity to correct cases of misidentification or inaccurate criminal or immigration records. Consistent with 28 CFR 50.12 in cases involving criminal records, and before making a final eligibility decision, TSA will advise the applicant that the FBI criminal record discloses information that would disqualify him or her from the TSA Pre✓™ Application Program.

Within 30 days after being advised that the criminal record received from the FBI discloses a disqualifying criminal offense, the applicant must notify TSA in writing of his or her intent to correct any information he or she believes to be inaccurate. The applicant must provide a certified revised record, or the appropriate court must forward a certified true copy of the information, prior to TSA approving eligibility of the applicant for the TSA Pre✓™ Application Program. With respect to immigration records, within 30 days after being advised that the immigration records indicate that the applicant is ineligible for the TSA Pre✓™ Application Program, the applicant must notify TSA in writing of his or her intent to correct any information believed to be inaccurate. TSA will review any information submitted and make a final decision. If neither notification nor a corrected record is received by TSA, TSA may make a final determination to deny eligibility. Individuals whom TSA determines are ineligible for the program will continue to be screened at airport security checkpoints according to TSA standard screening protocols.

To be eligible for expedited screening in a TSA Pre✓™ lane, the passenger will provide his or her KTN to the airline when making flight reservations. When the airline sends the passenger's Secure Flight Passenger Data (SFPD)[6] that includes a KTN to the Secure Flight passenger prescreening system, TSA will compare that information against the TSA Pre✓™ Application Program list (as well as watch lists) in Secure Flight before issuing an appropriate boarding pass printing instruction. If the passenger's identifying information matches the entry on the TSA Pre✓™ Application Program list, the passenger will be eligible for expedited screening, except that watch list matches will receive screening appropriate for their watch list status.

Enrollment into the TSA Pre✓™ Application Program, and use of the associated KTN, does not guarantee that an individual always will receive expedited screening at airport security checkpoints. The Program retains a component of randomness to maintain the element of unpredictability for security purposes. Accordingly, persons who have been enrolled in the TSA Pre✓™ Application Program may be randomly selected for standard physical screening on occasion. In addition, although the number of TSA Pre✓™ lanes at U.S. airports is increasing, TSA Pre✓™ is not yet available for all airports, all airlines, or all flights.

DHS Information Sharing. Consistent with DHS's information-sharing mission, TSA may share information stored in the DHS/TSA–021 TSA Pre✓™ Application Program system of records with other DHS components that have a need to know the information to carry out their national security, law enforcement, immigration, intelligence, or other homeland security functions. In addition, TSA may share information with appropriate federal, state, local, tribal, territorial, or foreign government agencies consistent with the routine uses set forth in the system of records notice.

Notice of Proposed Rulemaking. DHS is issuing this notice of proposed rulemaking to exempt this system of records (*see* ''Exemptions claimed for this system'') from certain provisions of the Privacy Act. This newly established system will be included in DHS's inventory.

No exemption shall be asserted with respect to information maintained in the system that is submitted by a person if that person, or his or her agent, seeks access to or amendment of such information. This system, however, may contain records or information created or recompiled from information contained in other systems of records that are exempt from certain provisions of the Privacy Act. For these records or information only, as necessary and appropriate to protect such information, in accordance with 5 U.S.C. 552a(k)(1) and (k)(2), DHS also will claim the original exemptions for these records or information from the following Privacy Act (5 U.S.C. 552a) subsections: (c)(3); (d); (e)(1); (e)(4)(G), (H), and (I); and (f). Moreover, DHS will add these exemptions to Appendix C of 6 CFR Part 5, DHS Systems of Records Exempt from the Privacy Act. Such exempt records or information may be law enforcement or national security investigation or encounter records, or terrorist screening records.

DHS needs these exemptions in order to protect information relating to investigations from disclosure to subjects of investigations and others who could interfere with investigatory material compiled for law enforcement or national security purposes. Specifically, the exemptions are required to: preclude subjects of investigations from learning of and exploiting sensitive investigatory material that would interfere with the investigative process; avoid disclosure of investigative techniques; protect sensitive and classified information compiled during the investigation; protect Transportation Security Administration Office of Intelligence and Analysis and other federal agency information; ensure DHS's and other federal agencies' ability to obtain information from third parties and other sources; protect the privacy of third parties; and safeguard Sensitive Security Information pursuant to 49 U.S.C. 114(r).

Nonetheless, DHS will examine each request on a case-by-case basis and, after conferring with the appropriate component or agency, may waive applicable exemptions in appropriate circumstances and when it would not appear to interfere with or adversely affect the investigatory purposes of the

[3] The Known Traveler Number is a component of Secure Flight Passenger Data (SFPD), both of which are defined in the Secure Flight regulations at 49 CFR 1560.3. *See also* the Secure Flight regulations at 49 CFR Part 1560.

[4] See the Privacy Impact Assessment for the Secure Flight Program, DHS/TSA/PIA–018(e), at *http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_tsa_secureflight_update018(e).pdf. See also* the Secure Flight SORN, DHS/TSA 019, *https://www.federalregister.gov/articles/2012/11/19/2012–28058/privacy-act-of-1974-system-of-records-secure-flight-records.* The Secure Flight SORN is being updated for other reasons.

[5] This System of Records Notice does not cover all individuals who may be eligible for TSA Pre✓™ expedited screening through some other means (for example, U.S. Customs and Border Protection Global Entry members, Members of the Armed Forces). This system only covers individuals who apply to TSA for enrollment in the TSA Pre✓™ Application Program.

[6] SFPD consists of name, gender, date of birth, passport information (if available), redress number (if available), Known Traveler number (if available), reservation control number, record sequence number, record type, passenger update indicator, traveler reference number, and itinerary information.

systems from which the information is recompiled or in which it is contained.

II. Privacy Act

The Privacy Act embodies fair information practice principles in a statutory framework governing the means by which Federal Government agencies collect, maintain, use, and disseminate individuals' records. The Privacy Act applies to information that is maintained in a ''system of records.'' A ''system of records'' is a group of any records under the control of an agency from which information is retrieved by the name of an individual or by some identifying number, symbol, or other identifying particular assigned to the individual. In the Privacy Act, an individual is defined to encompass U.S. citizens and lawful permanent residents. As a matter of policy, DHS extends administrative Privacy Act protections to all individuals when systems of records maintain information on U.S. citizens, lawful permanent residents, and visitors. The Privacy Act allows government agencies to exempt certain records from the access and amendment provisions. If an agency claims an exemption, however, it must issue a Notice of Proposed Rulemaking to make clear to the public the reasons why a particular exemption is claimed.

DHS is claiming exemptions from certain requirements of the Privacy Act for DHS/TSA–021 TSA Pre✓™ Application Program System of Records. Some information in DHS/TSA–021 TSA Pre✓™ Application Program System of Records relates to official DHS national security, immigration, and intelligence activities, and also may be Sensitive Security Information. These exemptions are needed to protect information relating to DHS activities from disclosure to subjects or others related to these activities. Specifically, the exemptions are required to preclude subjects of these activities from frustrating these processes; to avoid disclosure of investigative techniques; to ensure DHS's ability to obtain information from third parties and other sources; to protect the privacy of third parties; and to safeguard classified information. Disclosure of information to the subject of the inquiry also could permit the subject to avoid detection or apprehension.

In appropriate circumstances, when compliance would not appear to interfere with or adversely affect the law enforcement or national security purposes of this system and the overall law enforcement or national security processes, the applicable exemptions may be waived on a case-by-case basis.

A notice of system of records for DHS/TSA–021 TSA Pre✓™ Application Program System of Records is also published in this issue of the **Federal Register**.

List of Subjects in 6 CFR Part 5

Freedom of information; Privacy.

For the reasons stated in the preamble, DHS proposes to amend Chapter I of Title 6, Code of Federal Regulations, as follows:

PART 5—DISCLOSURE OF RECORDS AND INFORMATION

■ 1. The authority citation for part 5 continues to read as follows:

Authority: 6 U.S.C. 101 *et seq.;* Pub. L. 107–296, 116 Stat. 2135; 5 U.S.C. 301. Subpart A also issued under 5 U.S.C. 552. Subpart B also issued under 5 U.S.C. 552a.

■ 2. Amend Appendix C to Part 5 by adding paragraph 70 to read as follows:

Appendix C to Part 5—DHS Systems of Records Exempt From the Privacy Act

* * * * *

70. The DHS/TSA–021 TSA Pre✓™ Application Program System of Records consists of electronic and paper records and will be used by DHS/TSA. The DHS/TSA–021 Pre✓™ Application Program System of Records is a repository of information held by DHS on individuals who voluntarily provide personally identifiable information to the Transportation Security Administration in return for enrollment in a program that will make them eligible for expedited security screening at designated airports. This System of Records contains personally identifiable information in biographic application data, biometric information, pointer information to law enforcement databases, payment tracking, and U.S. Application membership decisions that support the TSA Pre✓™ Application Program membership decisions. The DHS/TSA–012 TSA Pre✓™ Application Program System of Records contains information that is collected by, on behalf of, in support of, or in cooperation with DHS and its components and may contain personally identifiable information collected by other federal, state, local, tribal, territorial, or foreign government agencies.

The Secretary of Homeland Security, pursuant to 5 U.S.C. 552a(k)(1) and (k)(2), has exempted this system from the following provisions of the Privacy Act: 5 U.S.C. 552a(c)(3); (d); (e)(1); (e)(4)(G), (H), and (I); and (f). Where a record received from another system has been exempted in that source system under 5 U.S.C. 552a(k)(1) and (k)(2), DHS will claim the same exemptions for those records that are claimed for the original primary systems of records from which they originated and claims any additional exemptions set forth here. Exemptions from these particular subsections are justified, on a case-by-case basis to be determined at the time a request is made, for the following reasons:

(a) From subsection (c)(3) (Accounting for Disclosures) because release of the accounting of disclosures could alert the subject of an investigation of an actual or potential criminal, civil, or regulatory violation to the existence of that investigation and reveal investigative interest on the part of DHS as well as the recipient agency. Disclosure of the accounting would therefore present a serious impediment to law enforcement efforts and/or efforts to preserve national security. Disclosure of the accounting also would permit the individual who is the subject of a record to impede the investigation, to tamper with witnesses or evidence, and to avoid detection or apprehension, which would undermine the entire investigative process.

(b) From subsection (d) (Access to Records) because access to the records contained in this system of records could inform the subject of an investigation of an actual or potential criminal, civil, or regulatory violation to the existence of that investigation and reveal investigative interest on the part of DHS or another agency. Access to the records could permit the individual who is the subject of a record to impede the investigation, to tamper with witnesses or evidence, and to avoid detection or apprehension. Amendment of the records could interfere with ongoing investigations and law enforcement activities and would impose an unreasonable administrative burden by requiring investigations to be continually reinvestigated. In addition, permitting access and amendment to such information could disclose security-sensitive information that could be detrimental to homeland security.

(c) From subsection (e)(1) (Relevancy and Necessity of Information) because in the course of investigations into potential violations of federal law, the accuracy of information obtained or introduced occasionally may be unclear, or the information may not be strictly relevant or necessary to a specific investigation. In the interests of effective law enforcement, it is appropriate to retain all information that may aid in establishing patterns of unlawful activity.

(d) From subsections (e)(4)(G), (H), and (I) (Agency Requirements) and (f) (Agency Rules), because portions of this system are exempt from the individual access provisions of subsection (d) for the reasons noted above, and therefore DHS is not required to establish requirements, rules, or procedures with respect to such access. Providing notice to individuals with respect to the existence of records pertaining to them in the system of records or otherwise setting up procedures pursuant to which individuals may access and view records pertaining to themselves in the system would undermine investigative efforts and reveal the identities of witnesses, potential witnesses, and confidential informants.

Dated: September 4, 2013.

Jonathan R. Cantor,

Acting Chief Privacy Officer, Department of Homeland Security.

[FR Doc. 2013–22069 Filed 9–10–13; 8:45 am]

BILLING CODE 9110–9M–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0705; Directorate Identifier 2013–NM–052–AD]

RIN 2120–AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model BD–700–1A10 airplanes. This proposed AD was prompted by a report that the manufacturer has determined that some completion centers used the heater/brake monitoring unit (HBMU) logic circuit to control the line voltage of the drain mast heaters. Since the drain mast heaters are connected in parallel with the number 2 pitot static (PS) probe heater circuit, a number 2 PS probe heater failure may not be detected by the fault monitoring capabilities of the HBMU. This proposed AD would require a modification of the air data probes and sensors. We are proposing this AD to detect and correct an unannunciated failure of two PS probe heaters, which could affect controllability of the airplane in icing conditions.

DATES: We must receive comments on this proposed AD by October 28, 2013.

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

- *Federal eRulemaking Portal:* Go to *http://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:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514–855–5000; fax 514–855–7401; email *thd.crj@aero.bombardier.com;* Internet *http://www.bombardier.com*. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

Examining the AD Docket

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

FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Flight Test Branch, ANE–172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228–7301; fax (516) 794–5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2013–0705; Directorate Identifier 2013–NM–052–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF–2012–32, dated December 13, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or ''the MCAI''), to correct an unsafe condition for the specified products. The MCAI states:

> The aeroplane manufacturer has determined that some completion centers used the Heater/Brake Monitoring Unit (HBMU) logic circuit to control the line voltage of the drain mast heaters. This same logic circuit is also used to control the line voltage of the number 2 pitot static (PS) probe heater. Since the drain mast heaters are connected in parallel with the number 2 PS probe heater circuit, a number 2 PS probe heater failure may not be detected by the fault monitoring capabilities of the HBMU.
>
> The unannunciated failure of two PS probe heaters could adversely affect the aeroplane's flight characteristics in icing conditions.
>
> This [Canadian] AD mandates a modification to the existing drain mast heater wiring to correct the fault-monitoring capabilities of the HBMU and eliminate the potential dormant failure of the number 2 PS probe heater.

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

Relevant Service Information

Bombardier, Inc. has issued Service Bulletin 700–30–021, Revision 01, dated November 21, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between This Proposed AD and the MCAI or Service Information

This AD applies only to airplanes that have been modified by any FAA supplemental type certificate (STC) specified in table 1 of paragraph 1.A., ''Effectivity,'' of Bombardier Service Bulletin 700–30–021, Revision 01, dated November 21, 2012.

Costs of Compliance

We estimate that this proposed AD affects 32 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification	35 work-hours × $85 per hour =	$0	$2,975	$95,200

Authority for This Rulemaking

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

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

Regulatory Findings

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

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

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

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

3. Will not affect intrastate aviation in Alaska; and

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

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

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

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

PART 39—AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

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

Bombardier, Inc.: Docket No. FAA–2013–0705; Directorate Identifier 2013–NM–052–AD.

(a) Comments Due Date

We must receive comments by October 28, 2013.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to Bombardier, Inc. Model BD–700–1A10 airplanes, certificated in any category, equipped with any electrical wiring heater current/brake temperature monitor unit (HBMU) installed in accordance with any FAA supplemental type certificate specified in table 1 of paragraph 1.A., ''Effectivity,'' of Bombardier Service Bulletin 700–30–021, Revision 01, dated November 21, 2012.

(2) For airplanes on which the applicable service request for product support action (SRPSA) specified in table 3 and table 4 of paragraph 1.A., ''Effectivity,'' of Bombardier Service Bulletin 700–30–021, Revision 01, dated November 21, 2012, has been incorporated, the requirements of this AD have been met.

(d) Subject

Air Transport Association (ATA) of America Code 30, Ice and Rain Protection.

(e) Reason

This AD was prompted by a report that the manufacturer has determined that some completion centers used the HBMU logic circuit to control the line voltage of the drain mast heaters. This same logic circuit is also used to control the line voltage of the number 2 pitot static (PS) probe heater. Since the drain mast heaters are connected in parallel with the number 2 PS probe heater circuit, a number 2 PS probe heater failure may not be detected by the fault monitoring capabilities of the HBMU. We are issuing this AD to detect and correct an unannunciated failure of two PS probe heaters, which could affect controllability of the airplane in icing conditions.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Modification

Within 800 flight hours or 15 months after the effective date of this AD, whichever occurs first: Modify the air data probes and sensors, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700–30–021, Revision 01, dated November 21, 2012.

(h) 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 Bombardier Service Bulletin 700–30–021, dated August 28, 2012.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York Aircraft Certification Office (ACO), ANE–170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516–228–7300; fax 516–794–5531. 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. The AMOC approval letter must specifically reference this AD.

(2) *Airworthy Product:* For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF–2012–32, dated December 13, 2012. The MCAI can be found in the AD docket on the Internet at *http://www.regulations.gov*.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-

Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514–855–5000; fax 514–855–7401; email *thd.crj@aero.bombardier.com;* Internet *http://www.bombardier.com.* You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

Issued in Renton, Washington, on August 30, 2013.

Stephen P. Boyd,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–22145 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0706; Directorate Identifier 2013–NM–067–AD]

RIN 2120–AA64

Airworthiness Directives; the Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain the Boeing Company Model DC–9–10, DC–9–30, and DC–9–40 series airplanes. This proposed AD was prompted by an evaluation by the design approval holder (DAH) indicating that the aft pressure bulkhead web area is subject to widespread fatigue damage (WFD). This proposed AD would require modifying the aft pressure bulkhead. The modification includes inspecting for cracks around the rivet holes, and repair of any cracking. We are proposing this AD to prevent fatigue cracking of the aft pressure bulkhead, which could result in reduced structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by October 28, 2013.

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 *http://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 AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800–0019, Long Beach, CA 90846–0001; telephone 206–544–5000, extension 2; fax 206–766–5683; Internet *https://www.myboeingfleet.com.* You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425–227–1221.

Examining the AD Docket

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

FOR FURTHER INFORMATION CONTACT: Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM–120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: (562) 627–5348; fax: (562) 627–5210; email: *eric.schrieber@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2013–0706; Directorate Identifier 2013–NM–067–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches. Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane, in a condition known as widespread fatigue damage (WFD). As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that DAHs establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose

LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

Explanation of Applicability

For The Boeing Company Model DC–9 series airplanes, AD 85–01–02 R1, Amendment 39–5241 (51 FR 6101, dated February 20, 1988), was issued to supersede an AD that required visual, eddy current, and x-ray inspections of the aft pressure bulkhead for cracking. AD 85–01–02 R1 required accomplishing the modification specified in Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984, within 18 months after March 31, 1986 (the effective date of AD 85–01–02 R1). Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984, specifies that the modification must be done for Groups I and II airplanes with more than 40,000 total flight cycles.

We are proposing this AD to address Group I or Group II airplanes that have not accomplished the modification specified in Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984. This proposed AD is not a supersedure because the required actions apply only to those airplanes. AD 85–01–02 R1, Amendment 39–5241 (51 FR 6101, dated February 20, 1988), also contained additional actions that are not included in this proposed AD.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984. For information on the procedures and compliance times, see this service information at *http://www.regulations.gov* by searching for Docket No. FAA–2013–0706.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information identified previously, except as discussed under ''Differences Between the Proposed AD and the Service Information.''

Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984, specifies that the original ventral bulkhead was tested by McDonnell Douglas for up to 76,550 flight cycles, and cracking was detected at 72,000 flight cycles. It was determined that the initial inspection threshold of 40,000 flight cycles, as specified in the service information, was based on half the test life, which was adjusted for the current fleet distribution at that time. Testing also showed an onset of cracking at 72,000 flight cycles was not widespread fatigue type cracking. Therefore, we have determined that a compliance time of ''before the accumulation of 72,000 flight cycles or with 18 months after the effective date of the AD, whichever is later'' adequately addresses the unsafe condition identified in this proposed AD.

Sheet 1 of Service Sketch 3109, and Sheet 7 of Service Sketch 3110B of Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984; specify reporting the details of any cracks found; however, this proposed AD does not require reporting.

Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

These differences have been coordinated with the manufacturer.

Explanation of Compliance Time

The compliance time for the modification specified in this proposed AD for addressing WFD was established to ensure that discrepant structure is modified before WFD develops in airplanes. Standard inspection techniques cannot be relied on to detect WFD before it becomes a hazard to flight. We will not grant any extensions of the compliance time to complete any AD-mandated service bulletin related to WFD without extensive new data that would substantiate and clearly warrant such an extension.

Costs of Compliance

We estimate that this proposed AD affects 6 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification (includes inspection).	542 work-hours × $85 per hour = $46,070	$4,680	$50,750	$304,500

Authority for This Rulemaking

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

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

Regulatory Findings

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

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

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

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

(3) Will not affect intrastate aviation in Alaska, and

(4) 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 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 (AD):

The Boeing Company: Docket No. FAA–2013–0706; Directorate Identifier 2013–NM–067–AD.

(a) Comments Due Date

We must receive comments by October 28, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model DC–9–10, DC–9–30, and DC–9–40 series airplanes, certificated in any category, identified in Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 5312, Fuselage Main Bulkhead.

(e) Unsafe Condition

This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the fuselage bulkhead web area is subject to widespread fatigue damage (WFD). We are issuing this AD to prevent fatigue cracking of the bulkhead, which could result in reduced structural integrity of the airplane.

(f) Compliance

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

(g) Modification

For airplanes on which the modification (AD4 rivets replaced with AD5 rivets) required by AD 85–01–02 R1, Amendment 39–5241 (51 FR 6101, dated February 20, 1988) has not been done: Before the accumulation of 72,000 total flight cycles, or within 18 months after the effective date of this AD, whichever occurs later, modify the aft pressure bulkhead by removing all affected AD4 rivets and doing either a fluorescent penetrant or eddy current inspection around the rivet holes for cracks, repairing any cracking, and installing five-leaf doublers with AD5 rivets, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984; except as required by paragraph (h) of this AD.

Note 1 to paragraph (g) of this AD: Information on additional procedures for the modification can be found in Notes 4, 5, and 6, as applicable, of paragraph 1.D., 'Compliance' of Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984.

(h) Exception to Service Information

If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984, specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) No Reporting Required

Sheet 1 of Service Sketch 3109, and Sheet 7 of Service Sketch 3110B of Boeing Alert Service Bulletin DC9–A53–144, Revision 2, dated February 23, 1984; specify reporting the details of any cracks found; however, this AD does not require reporting.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), 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 Los Angeles ACO, send it to the attention of the person identified in the Related Information section of this AD.

(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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by Structures Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM–120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: (562) 627–5348; fax: (562) 627–5210; email: *eric.schrieber@faa.gov.*

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800–0019, Long Beach, CA 90846–0001; telephone 206–544–5000, extension 2; fax 206–766–5683; Internet *https://www.myboeingfleet.com.* You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425–227–1221.

Issued in Renton, Washington, on August 30, 2013.

Stephen P. Boyd,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–22147 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Parts 730, 740, 744, 756, 758, and 762

[Docket No. 120524116–2116–01]

RIN 0694–AF70

Revisions to the Export Administration Regulations (EAR): Unverified List (UVL)

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Proposed rule.

SUMMARY: The Bureau of Industry and Security (BIS) proposes to amend the Export Administration Regulations (EAR) by: requiring exporters to file an Automated Export System (AES) record for all exports subject to the EAR involving a party or parties to the transaction who are listed on the Unverified List (the ''Unverified List'' or UVL); suspending the availability of license exceptions for exports,

reexports, and transfers (in-country) involving a party or parties to the transaction who are listed on the UVL; requiring exporters, reexporters, and transferors to obtain a UVL statement from a party or parties to the transaction who are listed on the UVL before proceeding with exports, reexports, and transfers (in-country) involving items subject to the EAR, but where the item does not require a license, i.e., No License Required (NLR); publishing the UVL in the EAR; and adding to the EAR the procedures to request removal or modification of a UVL entry.

These proposed changes to the UVL enhance the U.S. Government's ability to verify the *bona fides* of parties to exports, reexports, or transfers (in-country) of items subject to the EAR and provide the U.S. Government increased visibility into such exports, reexports, and transfers involving persons whose *bona fides* could not be verified.

DATES: Comments must be received by BIS no later than October 11, 2013.

ADDRESSES: Comments on this rule may be submitted to the Federal rulemaking portal (*www.regulations.gov*). The regulations.gov Docket ID for this rule is: BIS–2012–0017. Comments may also be submitted via email to *publiccomments@bis.doc.gov* or on paper to Regulatory Policy Division, Bureau of Industry and Security, Room 2099B, U.S. Department of Commerce, 14th St. and Pennsylvania Ave. NW., Washington, DC 20230. Please refer to RIN 0694–AF70 in all comments and in the subject line of email comments.

FOR FURTHER INFORMATION CONTACT: Kevin Kurland, Director, Office of Enforcement Analysis, Bureau of Industry and Security, Department of Commerce, Phone: (202) 482–2385 or by email at *Kevin.Kurland@bis.doc.gov.*

SUPPLEMENTARY INFORMATION:

Background

On June 14, 2002, the Bureau of Industry and Security (''BIS'') published a notice in the **Federal Register** (67 FR 40910) establishing a list of persons in foreign countries who were parties to past export transactions with respect to which pre-license checks or post-shipment verifications could not be conducted for reasons outside the control of the U.S. Government, including lack of cooperation by the host government authority, the end user, or the ultimate consignee (the ''Unverified List'' or ''UVL''). That **Federal Register** notice also indicated that BIS may add to the UVL names of persons that BIS discovers are affiliated with a person on the UVL by virtue of ownership, control, position of responsibility, or other affiliation or connection in the conduct of trade or business. Since that time, BIS has issued subsequent notices that added to or removed persons from the UVL, as circumstances have warranted. Currently, the UVL is published in the **Federal Register** in its entirety and updated as foreign persons are added to or removed from that list. The UVL is also available on the BIS Web site at *http://www.bis.doc.gov/enforcement/unverifiedlist/unverified_parties.html.*

The participation of a person listed on the UVL in any proposed transaction raises a ''red flag'' for purposes of the ''Know Your Customer'' guidance set forth in Supplement No. 3 to Part 732 of the EAR. *See* 67 FR 40910 (June 14, 2002) and 69 FR 42562 (July 16, 2004). Under that guidance, whenever there is a ''red flag,'' exporters have an affirmative duty to inquire, verify, or otherwise satisfy themselves that the transaction does not involve a proliferation activity prohibited by Part 744 and does not violate other provisions of the EAR.

On July 16, 2004 (69 FR 42652), BIS expanded the criteria for adding persons to the UVL to include situations in which BIS is not able to verify the existence or authenticity of the end user, intermediate consignee, ultimate consignee, or other party to an export transaction.

On August 21, 2008 (73 FR 49311), BIS expanded the scope of reasons to add persons to the Entity List. That rule amended Section 744.11 of the EAR to provide illustrative examples of the types of conduct that the U.S. Government could determine are contrary to U.S. national security or foreign policy interests for purposes of changes to the Entity List. One example listed in that section is, ''[p]reventing accomplishment of an end use check conducted by or on behalf of BIS or the Directorate of Defense Trade Controls of the Department of State by: precluding access to; refusing to provide information about; or providing false or misleading information about parties to the transaction or the item to be checked.'' That notice also included a discussion of the apparent overlap in criteria for adding foreign persons to the Entity List and the Unverified List based on a lack of cooperation with an end-use check.

End-use checks sometimes cannot be completed for reasons unrelated to the cooperation of the foreign party subject to the end-use check. In such situations, BIS has added parties to the UVL where BIS or federal officials acting on BIS's behalf have been unable to verify a foreign person's *bona fides* (i.e., legitimacy and reliability relating to the end use and end user of items subject to the EAR), where an end-use check, such as a pre-license check (PLC) or a post-shipment verification (PSV), cannot be completed satisfactorily for such purposes for reasons outside the U.S. Government's control. For example, BIS sometimes initiates end-use checks and cannot find a foreign party at the address indicated on export documents, and cannot locate the party by telephone or email. Additionally, BIS sometimes is unable to conduct end-use checks when host government agencies do not respond to requests to conduct end-use checks or refuse to schedule them in a timely manner. Under these circumstances, there may not be a basis to add the foreign persons at issue to the Entity List, particularly if there is no nexus between the foreign person's conduct and the failure to produce a complete, accurate and useful check (see § 744.11(b)(4) of the EAR (Criteria for revising the Entity List)).

Furthermore, BIS sometimes conducts end-use checks but cannot verify the *bona fides* of a foreign party. For example, BIS may be unable to verify *bona fides* if during the conduct of an end-use check a recipient of items subject to the EAR is unable to produce those items for visual inspection or provide sufficient documentation to confirm the disposition of those items. The inability of foreign persons subject to end-use checks to demonstrate their *bona fides* raises concerns about the suitability of such persons as participants in future exports, reexports, or transfers (in-country) and indicates a risk that items subject to the EAR may be diverted to prohibited end uses and/or end users. However, BIS may have insufficient information to establish that such persons are involved in activities described in Section 744.11 of the EAR, preventing the placement of the persons on the Entity List. In such circumstances, those foreign persons may be added to the Unverified List.

Reasons for This Rule

This rule proposes to eliminate ambiguity for listing foreign persons on the UVL and the Entity List by removing lack of cooperation by a foreign party as a basis for revising the UVL. Where the U.S. Government determines that the foreign party's lack of cooperation prevented the accomplishment of an end-use check, BIS may add such parties to the Entity List on the basis of § 744.11(b)(4) of the EAR.

Specifically, BIS is amending the EAR to include the criteria for listing persons in the UVL, including examples of actions that could result in a person

being listed on the UVL. These amendments, consistent with past practice, will apply to foreign persons who are parties to an export, reexport, and transfer (in-country) subject to the EAR if BIS, or federal officials acting on BIS's behalf, cannot verify the *bona fides* of such persons because an end-use check, such as a PLC or a PSV, cannot be completed satisfactorily for reasons outside of the U.S. Government's control. Examples of actions that could result in a person being listed on the UVL include: The subject of the check is unable to demonstrate the disposition of items during an end-use check; the existence or authenticity of the subject of an end-use check cannot be verified because, *inter alia,* the subject of the check cannot be located or contacted; or lack of cooperation by the host government authority.

In addition, BIS is no longer considering affiliation with a person on the UVL as a basis for adding foreign persons without further substantiation (e.g., conduct of an end-use check at the affiliate). A determination to list a particular person on the UVL is premised on BIS's inability to evaluate the *bona fides* of that person by conducting an end-use check. The fact that another, separate person is affiliated with a person on the UVL will no longer be considered a criterion for listing the affiliate. If BIS discovers a foreign person may be affiliated with a person listed on the UVL, BIS will initiate an end-use check on an export, reexport, or transfer (in-country) to which that person was a party. That person may be listed on the UVL if BIS is unable to verify that person's *bona fides* through an end-use check in accordance with the criteria described above.

BIS is proposing these changes to the UVL to address concerns raised by the public in the past about how to address a ''red flag'' identified by the U.S. Government. Accordingly, the proposed changes to the regulation provide guidance on how exporters can conduct business with a UVL person. Any license requirements for exports, reexports, or transfers (in-country) of items subject to the EAR continue to apply. For items not subject to a license requirement, the exporter, reexporter, or transferer (in-country) must receive from the UVL-listed person a UVL statement prior to the export, reexport, or transfer (in-country), in which the UVL-listed party certifies the end use, end user, and country of ultimate destination of items subject to the EAR and consents to an end-use check by the U.S. Government. The end-use check may include checks to any transaction to which that person was a party for items subject to the EAR exported, reexported, or transferred (in country) in the last five years, to enable the U.S. Government to satisfy earlier concerns with the UVL-listed party as well as its concerns with the current transaction.

Proposed Changes to the EAR

BIS proposes to amend the EAR by: (1) Requiring exporters to file an AES record for all exports subject to the EAR involving persons listed on the UVL; (2) suspending the availability of license exceptions for exports, reexports, and transfers (in-country) involving persons listed on the UVL; (3) requiring exporters, reexporters and transferors (in-country) to obtain a UVL statement from UVL-listed persons before proceeding with exports, reexports, and transfers (in-country) that are not otherwise subject to a license requirement under the EAR involving such persons; (4) adding the UVL to Supplement No. 6 to Part 744; and (5) adding to the EAR procedures to request removal or modification of a UVL entry.

The first of these changes, requiring the filing of an AES record for all exports to which a person listed on the UVL is a party, is described in § 748.5(d)–(f) of the EAR, and would increase U.S. Government awareness of transactions involving U.S.-origin items to such persons. Under current regulations, an AES filing is only required if an export license is also required or if the transaction is above a certain value. This rule proposes an exception to require an AES filing regardless of value or destination if a person involved in the transaction as described above is listed on the UVL.

Secondly, this rule's proposed suspension of license exceptions for exports, reexports, and transfers (in-country) of U.S.-origin items to persons listed on the UVL would increase U.S. Government insight into certain transactions involving such persons of items on the Commerce Control List (set forth in Supplement No. 1 to Part 774 of the EAR) by requiring a license for those transactions. This suspension is also consistent with § 740.2(b) of the EAR, which states, ''all License Exceptions are subject to revision, suspension, or revocation, in whole or in part, without notice.''

Third, BIS proposes to require exporters to obtain a signed UVL statement from UVL-listed persons before proceeding with any export, reexport, or transfer (in-country) involving such persons, when such persons are parties to a transaction as described in § 748.5 of the EAR, and when the item at issue is subject to the EAR but does not require a license under the EAR. The rule would require that the statement certify the end use, end user, and country of ultimate destination of the items, and set forth the person's consent to an end-use check by the U.S. Government. To facilitate any future end-use checks by the U.S. Government, the UVL-listed person would also include its complete contact information in the UVL statement, including its physical address. Such a statement would, in effect, establish that the UVL-listed party knows that it is required to comply with the EAR and agrees to an end-use check. The statement would also provide the U.S. Government with some assurance that the U.S.-origin item would be delivered to an identified end user and end use and that the transaction will comply with the EAR. In the absence of such compliance, the UVL statement would assist the U.S. Government's ability to take enforcement action.

BIS believes the proposed suspension of license exceptions, which would allow pre-shipment review by the U.S. Government of exports, reexports, and transfers (in-country) of certain controlled items involving persons listed on the UVL, coupled with the proposed requirement for exporters to obtain a UVL statement for exports, reexports, and transfers (in-country) involving such persons of items not subject to a license requirement, provides greater guidance on what steps are necessary in order to undertake an export, reexport, or transfer (in-country) of items subject to the EAR involving a party to the transaction who is listed on the UVL

Specifically, when an export, reexport, or transfer (in-country) is otherwise eligible for a license exception, if a party to the transaction as described in § 748.5 of the EAR is listed on the UVL, the use of license exceptions is not authorized. Under these circumstances, an exporter must apply to BIS for a license. If an export, reexport, or transfer (in-country) involving a person listed on the UVL is not subject to a license requirement under the EAR, the possible availability of a license exception does not arise. In such a case, an exporter may proceed with the export, reexport, or transfer (in-country) once the exporter obtains the signed UVL statement proposed herein and files an AES record in accordance with § 758.1 of the EAR, as amended. The signed UVL statement is not needed for transactions in which a license is required because BIS oversight of the transaction resulting from the grant of

the license renders a UVL statement unnecessary.

Fourth, BIS proposes to add the UVL to the EAR in Supplement No. 6 to Part 744. When adding a person to the UVL, BIS would list the person's name and address, and the date on which the person was added to the UVL by publication in the **Federal Register**. Updates to the UVL would continue to be published in the **Federal Register**, and would remain available on the BIS Web site. The UVL also would continue to be included in the Consolidated Screening List, available at *www.export.gov.*

Once published in the EAR, the UVL shall contain the names and addresses of foreign persons who are or have been parties to a transaction, as that term is described in § 748.5 of the EAR, involving the export, reexport, or transfer (in-country) of items subject to the EAR, and whose *bona fides* BIS has been unable to verify through an end-use check. Any changes to the UVL would be published in the **Federal Register** as an amendment to the UVL.

In addition to adding the UVL to Supplement No. 6 to Part 744, BIS proposes adding to the regulations an overview of the UVL, the conditions it imposes with respect to exports, reexports, and transfers (in-country) to listed persons, the criteria for revising the UVL, and the procedures for requesting removal or modification of a UVL entry.

BIS adds a person to the UVL under certain circumstances. For example, in some instances, BIS may not be able to conduct an end-use check, such as a PLC or a PSV, at all because, among other potential reasons, BIS was unable to locate or contact the subject of the check or the host government declined to schedule the check in a timely manner. Alternatively, BIS may not be able to complete a satisfactory end-use check because, *inter alia*, the foreign party is unable to demonstrate its *bona fides* or the disposition of the items in question during the end-use check. In either circumstance, BIS may determine to add the foreign person to the UVL.

BIS removes a person listed on the UVL using certain procedures. The successful completion of an end-use check, or, in the limited circumstance where such a check cannot be completed due to lack of host government cooperation, a suitable alternative process to verify the *bona fides* of the foreign party at issue would be a prerequisite for removing persons from the UVL. One illustrative example of alternative authentication could involve the U.S. exporter or license applicant visiting the foreign person subject to the end-use check, at that person's request, and providing sufficient information to the U.S. Government to verify the foreign person's *bona fides* and satisfy questions relating to the end use and end user of the items in question. Procedures for requesting an alternative process to verify the *bona fides* of a foreign person in this circumstance are identical to the procedures for requesting removal of a UVL listing, set forth in Section 744.15 of the EAR.

If BIS confirms the *bona fides* of the listed person, any subsequent determination to remove the foreign person from the UVL would be published in the **Federal Register**. Once a foreign person is removed from the UVL, the provisions in the EAR regarding persons listed on the Unverified List will no longer apply to that person, though other provisions in the EAR will continue to apply as appropriate. BIS is reviewing the entries of those parties who are currently on the UVL and will publish its determination of which, if any, of the current UVL-listed parties will be removed from the UVL at the time that this rule is published in final form. Until such time, any parties listed on the UVL will remain on the UVL unless separately removed through a **Federal Register** notice. BIS will subsequently regularly review the UVL for the purpose of identifying and implementing any needed corrections and updates.

Lastly, this rule proposes to modify the procedures for requesting removal of a person listed on the UVL by adding decisions on requests to remove or modify a UVL entry to the list of administrative actions that are not subject to Part 756 appeals. This would be accomplished through the proposed addition of § 744.15(d) of the EAR. Decisions regarding the removal or modification of UVL listings would now be made by the Deputy Assistant Secretary for Export Enforcement, based on a demonstration by the listed person of its *bona fides.*

Proposed Amendment to Supplement No. 1 to part 730

Due to changes to § 744.15 of the EAR, which are described below, BIS proposes amending Supplement No. 1 to Part 730 of the EAR to include references to the two additional information collections associated with this proposed rule: (1) The UVL statement and (2) requests to remove or modify listings on the UVL. The collection and retention of the UVL statement by private parties in connection with the export, reexport, or transfer (in-country) to a person listed on the UVL of items not subject to a license requirement under the EAR shall be made under Office of Management and Budget (OMB) control number 0694–0122 (''Licensing Responsibilities and Enforcement''). The submission of information to BIS by persons listed on the UVL in support of an appeal for removal a UVL listing will be made under OMB control number 0694–0134. Accordingly, BIS proposes to amend Supplement No. 1 to Part 730 of the EAR by adding a reference to proposed § 744.15 in connection with existing collection number 0694–0122, and by changing the title of existing collection number 0694–0134 to ''Procedure for parties on the Entity List or Unverified List to Request Removal or Modification of their Listing'' and adding a reference to proposed § 744.15 in connection with that collection number.

Proposed Amendments to § 740.2

BIS proposes adding a new paragraph (a)(17) to the § 740.2 ''Restrictions on all License Exceptions.'' This paragraph would state that license exceptions may not be used where a party to the transaction as described in § 748.5 of the EAR is listed on the Unverified List.

Proposed New § 744.15 and Amendment to § 756.1

BIS proposes adding a new section to Part 744 to set forth the new provisions pertaining to persons listed on the UVL. New section § 744.15 would provide an overview of the UVL, the conditions it imposes with respect to exports, reexports, and transfers (in-country) to listed persons, and the criteria for revising the UVL. This new section would also include the procedures for requesting removal or modification of a person on the UVL.

BIS also proposes to exclude appeals for removal of Unverified List entries from the provisions of Part 756 of the EAR. Requests for removal instead will be made according to the procedures set forth in proposed § 744.15 of the EAR. Accordingly, paragraph (a)(3) of § 756.1 of the EAR would be amended by adding a reference to decisions on requests to remove UVL entries made pursuant to proposed § 744.15 of the EAR.

Proposed New Supplement No. 6 to Part 744

The UVL would be added to the EAR in Supplement No. 6 to Part 744. Each listing would be grouped by country, and would be accompanied by the person's address(es) as well as the **Federal Register** citation and date the person was added to the UVL. In addition, the UVL would include a

citation to § 744.15, indicating that exports, reexports, and transfers (in-country) where parties to the transactions are listed on the Unverified List are subject to the provisions of § 744.15.

Proposed Amendment to § 758.1

BIS proposes adding a new paragraph (b)(8) of § 758.1 of the EAR, which would state that filing an AES record is required for all exports of items subject to the EAR where a party to the transaction as described in § 748.5(d)–(f) is listed on the Unverified List, regardless of value or destination.

Proposed Amendment to § 762.2

Paragraph (b) in § 762.2 of the EAR contains references to parts, sections, and supplements of the EAR which require the retention of records or contain recordkeeping provisions. Proposed § 744.15 of the EAR contains a recordkeeping requirement related to the retention of UVL statements. Section 762.2(b)(13) of the EAR is currently reserved. BIS proposes to modify that paragraph to reference the UVL statement recordkeeping requirement in proposed § 744.15 of the EAR.

Export Administration Act

Since August 21, 2001, the Export Administration Act of 1979, as amended, has been in lapse. However, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as amended by Executive Order 13637 of March 8, 2013, 78 FR 16129 (March 13, 2013), and as extended by the Notice of August 8, 2013, 78 FR 49107 (August 12, 2013) has continued the EAR in effect under the International Emergency Economic Powers Act (50 U.S.C. 1701 *et seq.*). BIS continues to carry out the provisions of the Export Administration Act, as appropriate and to the extent permitted by law, pursuant to Executive Order 13222 as amended by Executive Order 13637.

Rulemaking Requirements

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

2. Notwithstanding any other provision of law, no person is required to respond to, nor is subject to a penalty for failure to comply with, a collection of information, subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number. This regulation involves collections previously approved by OMB under the following control numbers: 0694–0088, 0694–0122, 0694–0134, and 0694–0137. Specifically, BIS would be requesting a revision and extension of existing collection OMB 0694–0134 (Procedure for parties on the Entity List to Request Removal or Modification of their Listing) and non-substantive changes to OMB Control Numbers 0694–0088 (Simplified Network Application Processing and Multipurpose Application Form), 0694–0122 (Licensing Responsibilities and Enforcement), and 0694–0137 (License Exemptions and Exclusions).

This proposed rule, if published in final form, would slightly increase public burden in a collection of information approved by OMB under control number 0694–0088, which authorizes, among other things, export license applications. The removal of license exceptions for listed parties on the Unverified List would result in increased license applications being submitted to BIS by exporters. Total burden hours associated with the Paperwork Reduction Act and OMB control number 0694–0088 are expected to increase minimally, as the suspension of license exceptions will only affect transactions involving parties listed on the Unverified List and not all export transactions. If license exceptions are restricted from use, this rule will decrease public burden in a collection of information approved by OMB under control number 0694–0137 minimally, as this will only affect a very small number of individual listed parties. The increased burden under 0694–0088 would be reciprocal to the decrease of burden under 0694–0137, which would result in no change of burden to the public. This proposed rule would also increase public burden in a collection of information under OMB control number 0694–0122, as a result of the exchange of UVL statements between private parties, and under OMB control number 0694–0134 as a result of appeals from persons listed on the UVL for removal of their listing. The total increase in burden hours associated with both of these collections is expected to be minimal, as they involve a limited number of persons listed on the UVL.

3. This proposed rule does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

4. 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 in final form, would not have a significant economic impact on a substantial number of small entities.

Number of Small Entities

Currently, BIS does not collect data on the size of entities that apply for and are issued export licenses. Although BIS is unable to estimate the exact number of small entities that would be impacted by this rule, it acknowledges that this rule would impact some unknown number. This rule would affect exporters and freight forwarders, with obligations to apply for export licenses, obtain and retain UVL statements, and/or file AES records in connection with exports, reexports, or transfers (in-country) in which a person listed on the UVL is a party to the transaction. These requirements would apply to all entities proceeding with such transactions, regardless of size.

Conclusion

BIS is unable to determine whether there are a substantial number of small entities affected by this rule. However, this rule is not expected to affect a disproportionate number of small entities because it is directed at a limited number of foreign persons and will impact all export transactions to these persons, regardless of whether the exports are made or intended to be made by small, medium, or large entities. BIS has administered the UVL based on listing criteria similar to those proposed in this rule since 2002. This rule would impact transactions involving persons listed on the UVL, which currently has 36 persons listed. Due to the limited number of persons expected to be maintained on the UVL, BIS estimates that the number of transactions involving these persons represents only a small fraction of the total number of transactions recorded in AES. BIS estimates that regulated entities would incur minimal economic burdens on transactions involving UVL persons as a result of this rule because there are few transactions involving such persons and for those transactions where they are involved, there is no monetary fee to apply for a BIS license or file a record in AES. Moreover,

obtaining a signed UVL statement from UVL persons for items not subject to a license requirement will result in minimal burden to U.S. exporters, as the statement can simply be copied from the EAR and forwarded to the UVL person for review and signature. The maintenance of any such UVL statement also will have minimal burden on U.S. exporters as the EAR already has similar recordkeeping requirements under Section 762.2 of the EAR. As a result, the requirements proposed by this rule would amount to very little economic burden.

For the reasons above, the Chief Counsel for Regulation certified that this proposed rule would not have a significant economic impact on a substantial number of small entities.

List of Subjects

15 CFR Part 730

Administrative practice and procedure, Advisory committees, Exports, Reporting and recordkeeping requirements, Strategic and critical materials

15 CFR Part 740

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

15 CFR Part 744

Exports, Reporting and recordkeeping requirements, Terrorism.

15 CFR Part 756

Appeals.

15 CFR Part 758

Export Clearance Requirements.

15 CFR Part 762

Recordkeeping.

Accordingly, 15 CFR Parts 730, 740, 744, 756, 758, and 762 of the Export Administration Regulations are proposed to be amended as follows:

PART 730—[AMENDED]

■ 1. The authority citation for 15 CFR part 730 continues to read as follows:

Authority: 50 U.S.C. app. 2401 et seq.; 50 U.S.C. 1701 et seq.; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c; 22 U.S.C. 2151 note; 22 U.S.C. 3201 et seq.; 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 15 U.S.C. 1824a; 50 U.S.C. app. 5; 22 U.S.C. 7201 et seq.; 22 U.S.C. 7210; E.O. 11912, 41 FR 15825, 3 CFR, 1976 Comp., p. 114; E.O. 12002, 42 FR 35623, 3 CFR, 1977 Comp., p. 133; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12214, 45 FR 29783, 3 CFR, 1980 Comp., p. 256; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12854, 58 FR 36587, 3 CFR, 1993 Comp., p. 179; E.O. 12918, 59 FR 28205, 3 CFR, 1994 Comp., p. 899; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 12947, 60 FR 5079, 3 CFR, 1995 Comp., p. 356; E.O. 12981, 60 FR 62981, 3 CFR, 1995 Comp., p. 419; E.O. 13020, 61 FR 54079, 3 CFR, 1996 Comp., p. 219; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13099, 63 FR 45167, 3 CFR, 1998 Comp., p. 208; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13224, 66 FR 49079, 3 CFR, 2001 Comp., p. 786; E.O. 13338, 69 FR 26751, 3 CFR, 2004 Comp., p 168; Notice of May 9, 2012, 77 FR 27559 (May 10, 2012); Notice of August 15, 2012, 77 FR 49699 (August 16, 2012); Notice of September 11, 2012, 77 FR 56519 (September, 12, 2012) ; Notice of November 1, 2012, 77 FR 66513 (November 5, 2012); Notice of January 17, 2013, 78 FR 4303 (January 22, 2013).

■ 2. Supplement No. 1 to part 730 is amended by:

■ a. Removing the phrase ''Part 758, and § 748.4'' and adding in its place ''§§ 744.15(b) and 748.4 and Part 758'' in the ''Reference in the EAR'' column of 0694–0122 row;

■ b. Removing the Title ''Procedure for parties on the Entity List to Request Removal or Modification of their Listing'' and adding in its place ''Procedure for parties on the Entity List or the Unverified List to Request Removal or Modification of their Listing'' in the Title Column of the 0694–0134 row; and

■ c. Removing the reference ''§ 744.16'' and adding in its place ''§§ 744.15 and 744.16'' in the Reference in the EAR column of the 0694–0134 row.

PART 740—[AMENDED]

■ 3. The authority citation for 15 CFR Part 740 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* 22 U.S.C. 7201 *et seq.;* E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

■ 4. Section 740.2 is amended by adding paragraph (a)(17) to read as follows:

§ 740.2 Restrictions on all License Exceptions.

(a) * * *

(17) A party to the transaction, as described in § 748.5 of the EAR, is listed on the Unverified List in Supplement No. 6 to Part 744, see § 744.15 of the EAR.

* * * * *

PART 744—[AMENDED]

■ 5. The authority citation for 15 CFR Part 744 continues to read as follows:

Authority: 50 U.S.C. app. 2401 et seq.; 50 U.S.C. 1701 et seq.; 22 U.S.C. 3201 et seq.; 42 U.S.C. 2139a; 22 U.S.C. 7201 et seq.; 22 U.S.C. 7210; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 12947, 60 FR 5079, 3 CFR, 1995 Comp., p. 356; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13099, 63 FR 45167, 3 CFR, 1998 Comp., p. 208; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13224, 66 FR 49079, 3 CFR, 2001 Comp., p. 786; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012); Notice of September 11, 2012, 77 FR 56519 (September, 12, 2012) ; Notice of November 1, 2012, 77 FR 66513 (November 5, 2012); Notice of January 17, 2013, 78 FR 4303 (January 22, 2013).

■ 6. Part 744 is amended by adding § 744.15 to read as follows:

§ 744.15 Restrictions on Exports, Reexports and Transfers (in-country) to Persons Listed on the Unverified List.

(a) *General requirement.* In addition to the requirements set forth elsewhere in the EAR, exports, reexports, or transfers (in-country) of item(s) subject to the EAR involving parties to the transaction who are listed on the Unverified List may be made only in accordance with paragraph (b) of this section. The names and addresses of foreign persons subject to end-user controls based on the criteria described in paragraph (c) of this section are identified in the Unverified List found in Supplement No. 6 to this part. Requirements found elsewhere in the EAR also apply, including but not limited to any license requirements, the record filing requirements pursuant to § 758.1(b)(8), and the restrictions on license exceptions described in § 740.2(a)(17).

(b) *UVL Statement.* Before proceeding with any export, reexport, or transfer (in-country) subject to the EAR that is not subject to a license requirement, involving a person listed on the Unverified List as a party described in § 748.5 of the EAR, an exporter, reexporter, or transferor (in-country) must obtain a UVL statement from such person, according to the provisions set forth in this section. The statement must be retained in accordance with Part 762 of the EAR.

(1) One UVL statement may be used for multiple shipments of the same items between the same parties, so long as the party names, the description(s) of the items and the ECCNs are correct. If one UVL statement is used for multiple shipments, the exporter, reexporter, and transferor (in-country) must maintain a log or other record that identifies each shipment made pursuant to this section and the specific UVL statement that is associated with each shipment. The log or record must be retained in accordance with Part 762 of the EAR.

(2) The UVL statement must be in writing, signed by an individual of

sufficient authority to legally bind the UVL party, and state the following:

(i) Name of UVL party; complete physical address (simply listing a post office is insufficient); telephone number; fax number; email address; Web site (if available); and name of individual signing the UVL statement.

(ii) Agrees not to use the item(s) for any use prohibited by the United States Export Administration Regulations (EAR), 15 CFR Parts 730–772, and agrees not to reexport or transfer (in-country) the item(s) to any destination, use or user prohibited by the EAR.

(iii) Declares that the end use, end user, and country of ultimate destination of the item(s) subject to the EAR are as follows: [INSERT END USE, END USER, AND COUNTRY OF ULTIMATE DESTINATION].

(iv) Agrees to cooperate with end-use checks, including a Pre-License Check or a Post-Shipment Verification, conducted by or on behalf of the Bureau of Industry and Security, U.S. Department of Commerce, for any item subject to the EAR in transactions to which they were a party in the last five years. This cooperation includes facilitating the timely conduct of the check and providing full and accurate information concerning the disposition of items subject to the EAR.

(v) Agrees to provide copies of this document and all other export, reexport or transfer (in-country) records required to be retained in Part 762 of the EAR.

(vi) Certifies that the individual signing the UVL Statement has sufficient authority to legally bind the party.

(c) *Criteria for revising the Unverified List.* (1) Foreign persons who are parties to an export, reexport, and transfer (in-country) subject to the EAR may be added to the Unverified List if BIS or federal officials acting on BIS's behalf cannot verify the *bona fides* (i.e., legitimacy and reliability relating to the end use and end user of items subject to the EAR) of such persons because an end-use check, such as a pre-license check (PLC) or a post-shipment verification (PSV), cannot be completed satisfactorily for reasons outside of the U.S. Government's control. The examples in paragraphs (c)(1)(i) through (iii) of this section provide an illustrative list of those circumstances.

(i) During the conduct of an end-use check, the subject of the check is unable to demonstrate the disposition of items subject to the EAR.

(ii) The existence or authenticity of the subject of an end-use check cannot be verified (e.g., the subject of the check cannot be located or contacted).

(iii) Lack of cooperation by the host government authority prevents an end-use check from being conducted.

(2) BIS may remove a person from the Unverified List when BIS is able to verify the *bona fides* of the listed person as an end user, consignee, or other party to exports, reexports, or transfers (in-country) involving items subject to the EAR by completing a PLC or PSV. In the limited circumstance involving a PLC or PSV that cannot be completed due to lack of host government cooperation, an alternative *bona fides* verification process may be determined by BIS to be sufficient. Such a determination is separate from those made by BIS pursuant to § 744.11(b) of the EAR, and should be requested through paragraph (d) of this section.

(d) *Procedure for requesting removal of a person on the Unverified List.* Any person listed on the Unverified List may request that its listing be amended or removed.

(1) All such requests, including reasons therefor and information that would verify the *bona fides,* i.e., legitimacy and reliability of the person listed on the Unverified List as an end user, consignee or other party to exports, reexports, and transfers (in-country) of items subject to the EAR, must be in writing and sent to: Director, Office of Enforcement Analysis, Bureau of Industry and Security, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue NW., Room 4065, Washington, DC 20230, via fax to (202) 482–0971, or by email to [insert email address].

(2) The Deputy Assistant Secretary for Export Enforcement will review such requests and will convey the decision on the request to the requester in writing based on an assessment of the listed person's *bona fides* as a party to exports, reexports, and transfers (in-country) subject to the EAR. That decision will be the final agency action on the request.

■ 7. Part 744 is amended by adding Supplement No. 6 to read as follows:

Supplement No. 6 to Part 744—Unverified List

Exports, reexports, and transfers (in-country) involving parties to the transaction who are listed in this supplement are subject to the restrictions outlined in § 744.15 of the EAR.

Country	Listed person and address	**Federal Register** citation and date of publication
Reserved	Reserved	Reserved.

PART 756—[AMENDED]

■ 8. The authority citation for 15 CFR Part 756 continues to read as follows:

Authority: 50 U.S.C. app 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

■ 9. Section 756.1 is amended by revising paragraph (a)(3) to read as follows:

§ 756.1 Introduction.

(a) * * *

(3) A decision on a request to remove or modify an Entity List entry made pursuant to § 744.16 of the EAR or a decision on a request to remove an Unverified List entry made pursuant to § 744.15 of the EAR.

PART 758—[AMENDED]

■ 10. The authority citation for 15 CFR Part 758 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

■ 11. Section 758.1 is amended by adding paragraph (b)(8) to read as follows:

§ 758.1 The Shipper's Export Declaration (SED) or Automated Export System (AES) record.

* * * * *

(b) * * *

(8) For all exports of items subject to the EAR where parties to the transaction, as described in § 748.5(d)–(f) of the EAR, are listed on the Unverified List (Supplement 6 to Part 744 of the EAR), regardless of value or destination.

PART 762—[AMENDED]

■ 12. The authority citation for 15 CFR Part 762 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

■ 13. Section 762.2 is amended by revising paragraph (b)(13) to read as follows:

§ 762.2 Records to be retained.

* * * * *

(b) * * *

(13) § 744.15(b), UVL statement as well as any logs or records created for multiple shipments;

* * * * *

Dated: September 3, 2013.

Kevin J. Wolf,

Assistant Secretary for Export Administration.

[FR Doc. 2013–21996 Filed 9–10–13; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 1140

[Docket No. FDA–2013–N–0521]

Menthol in Cigarettes, Tobacco Products; Request for Comments; Extension of Comment Period

AGENCY: Food and Drug Administration, HHS.

ACTION: Advance notice of proposed rulemaking; extension of comment period.

SUMMARY: The Food and Drug Administration (FDA) is extending the comment period for the advance notice of proposed rulemaking (ANPRM) that appeared in the **Federal Register** of July 24, 2013 (78 FR 44484). In the ANPRM, FDA requested comments, including comments on FDA's preliminary evaluation, and data, research, or other information that may inform regulatory actions that FDA might take with respect to menthol in cigarettes. The Agency is taking this action in response to requests for an extension to allow interested persons additional time to submit comments.

DATES: FDA is extending the comment period on the ANPRM. Submit either electronic or written comments by November 22, 2013.

ADDRESSES: You may submit comments, identified by Docket No. FDA–2013–N–0521, by any of the following methods:

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

Written Submissions

Submit written submissions in the following ways:

• *Mail/Hand delivery/Courier (for paper or CD–ROM submissions):* Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

Instructions: All submissions received must include the Agency name and Docket No. FDA–2013–N–0521 for this rulemaking. All comments received may be posted without change to *http://www.regulations.gov,* including any personal information provided. For additional information on submitting comments, see the ''Comments'' heading of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: For access to the docket to read background documents or comments received, go to *http://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 Division of Dockets Management, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Lauren Berkowitz or Annette L. Marthaler, Center for Tobacco Products, Food and Drug Administration, 9200 Corporate Blvd., Rockville, MD 20850–3229, 877–287–1373, *CTPRegulations@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

In the **Federal Register** of July 24, 2013 (78 FR 44484), FDA published an ANPRM with a 60-day comment period to request comments on FDA's preliminary evaluation, and data, research, or other information that may inform regulatory actions FDA might take with respect to menthol in cigarettes.

The Agency has received comments requesting a 60-day extension of the comment period for the ANPRM. These comments convey concern that the current 60-day comment period does not allow sufficient time to develop meaningful or thoughtful responses to questions raised in the ANPRM. FDA has also received comments opposing an extension of the current comment period on the grounds that ample time has been given to comment on the issues raised in the ANPRM.

FDA has considered the requests and is extending the comment period for the ANPRM for 60 days, until November 22, 2013. The Agency believes that a 60-day extension allows adequate time for interested persons to submit comments without significantly delaying any potential regulatory action on these important issues.

II. Request for Comments

Interested persons may submit either electronic comments regarding this document to *http://www.regulations.gov* or written comments to the Division of Dockets Management (see **ADDRESSES**). It is only necessary to send one set of comments. Identify comments with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday, and will be posted to the docket at *http://www.regulations.gov.*

Dated: September 4, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22015 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF VETERANS AFFAIRS

38 CFR Part 17

RIN 2900–AO78

Hospital Care and Medical Services for Camp Lejeune Veterans

AGENCY: Department of Veterans Affairs.

ACTION: Proposed rule.

SUMMARY: The Department of Veterans Affairs (VA) proposes to amend its regulations to implement a statutory mandate that VA provide health care to certain veterans who served at Camp Lejeune, North Carolina, for at least 30 days during the period beginning on January 1, 1957, and ending on December 31, 1987. The law requires VA to furnish hospital care and medical services for these veterans for certain illnesses and conditions that may be attributed to exposure to toxins in the water system at Camp Lejeune. This proposed rule does not implement the statutory provision requiring VA to provide health care to these veterans' family members; regulations applicable to such family members are currently in development and will be promulgated through a separate notice.

DATES: Comments must be received on or before October 11, 2013.

ADDRESSES: Written comments may be submitted through *http://www.regulations.gov;* by mail or hand-delivery to Director, Regulations Management (02REG), Department of Veterans Affairs, 810 Vermont Avenue NW., Room 1068, Washington, DC

20420; or by fax to (202) 273–9026. Comments should indicate that they are submitted in response to ''RIN 2900–AO78, Hospital Care and Medical Services for Camp Lejeune Veterans.'' Copies of comments received will be available for public inspection in the Office of Regulation Policy and Management, Room 1068, between the hours of 8:00 a.m. and 4:30 p.m. Monday through Friday (except holidays). Please call (202) 461–4902 for an appointment. (This is not a toll-free number.) In addition, during the comment period, comments may be viewed online through the Federal Docket Management System at *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Terry Walters, Deputy Chief Consultant, Post-Deployment Health, Office of Public Health (10P3A), Veterans Health Administration, 810 Vermont Avenue NW., Washington, DC 20420, (202) 461–1017 (this is not a toll-free number).

SUPPLEMENTARY INFORMATION: On August 6, 2012, the President signed into law the Honoring America's Veterans and Caring for Camp Lejeune Families Act of 2012, Public Law 112–154 (the Act). Among other things, section 102 of the Act amended section 1710 of title 38, United States Code (U.S.C.), to require VA to provide hospital care and medical services, for certain specified illnesses and conditions, to veterans who served at the Marine Corps base at Camp Lejeune, North Carolina (hereinafter referred to as Camp Lejeune), while on active duty in the Armed Forces for at least 30 days during the period beginning on January 1, 1957, and ending on December 31, 1987. This proposed rule would implement this statutory requirement by amending existing VA regulations and creating a new § 17.400 in title 38, Code of Federal Regulations (CFR).

The purpose of the Act is to ensure that these veterans receive care for illnesses and conditions that may have been the result of drinking contaminated water while they were stationed at Camp Lejeune. From at least 1957 to 1987, drinking-water systems that supplied Camp Lejeune were contaminated with industrial chemicals. The contaminated wells were shut down in February 1985. The primary chemicals found in the drinking water included perchloroethylene, trichloroethylene, benzene, and vinyl chloride. The duration and intensity of individuals' exposure to contaminated water at Camp Lejeune are unknown and cannot be positively determined. The geographic extent of contamination is unclear but can be limited based on certain factors that we discuss in greater detail below. In a 2009 report created at the request of the U.S. Navy, the National Academy of Sciences' National Research Council (hereinafter referred to as NAS) issued a study titled, ''Contaminated Water Supplies at Camp Lejeune: Assessing Potential Health Effects,'' which found that it cannot be determined reliably whether diseases and disorders experienced by former residents and workers at Camp Lejeune are associated with their exposure to contaminants in the water supply because of data shortcomings and methodological limitations, and these limitations cannot be overcome with additional study. Therefore, the NAS report recommended that policy changes or administrative actions should not wait for further studies. NAS, ''Contaminated Water Supplies at Camp Lejeune: Assessing Potential Health Effects,'' p. 22, National Academies Press (2009) (the NAS report).

In response to information, including the NAS report, and informed by studies conducted by the Centers for Disease Control's Agency for Toxic Substance and Disease Registry, Congress established in 38 U.S.C. 1710(e)(1)(F) that veterans who ''served on active duty in the Armed Forces at Camp Lejeune, North Carolina, for not fewer than 30 days during the period beginning on January 1, 1957, and ending on December 31, 1987, [are] eligible for hospital care and medical services'' under 38 U.S.C. 1710(a)(2)(F) for illnesses and conditions listed in 38 U.S.C. 1710(e)(1)(F)(i) through (xv). Although this rulemaking proposes regulations to implement this statutory requirement, we note that VA is currently providing veterans with health care under the statutory mandate.

We also note that a related statutory provision in section 102 of the Act codified 38 U.S.C. 1787, which requires VA to furnish health care to certain family members of veterans who resided at Camp Lejeune during the same time period to the extent and in the amount provided in advance in appropriations Acts for this purpose. This proposed rule does not implement section 1787, nor does it otherwise address family members. The implementation of section 1787 will be the subject of a future rulemaking.

We now discuss each paragraph of the proposed regulation, 38 CFR 17.400, implementing and interpreting our new authority under 38 U.S.C. 1710(e)(1)(F).

In § 17.400(a), we would set forth the general principle, discussed above, that VA will provide hospital care and medical services to Camp Lejeune veterans. We also would state that VA will enroll these veterans in the VA health care system in accordance with § 17.36(b)(6). The basis for enrollment under § 17.36(b)(6), referred to as ''priority category 6,'' is established as follows. Under 38 U.S.C. 1710(a)(2)(F), VA is required to furnish hospital care and medical services to a veteran exposed to toxic substances and identified in section 1710(e). Section 1710(e)(1)(F) applies to Camp Lejeune veterans. 38 U.S.C. 1705 directs VA to establish a patient enrollment system, and 38 CFR 17.36(b) implements this authority through an enrollment system that establishes eight priority categories and directs VA to enroll veterans in accordance with the priorities. Priority category 6 applies to veterans who are not covered under priority categories 1 through 5 and are ''eligible for hospital care, medical services, and nursing home care under [38 U.S.C.] 1710(a)(2).'' 38 U.S.C. 1705(a)(6). As noted above, section 1710(a)(2)(F) requires the provision of hospital care and medical services to veterans who are identified in section 1710(e), i.e., Camp Lejeune veterans. Under current 38 CFR 17.36(b)(6), these exposed veterans are enrolled in priority category 6. Therefore, we would amend § 17.36(b)(6) to include Camp Lejeune veterans.

Under 38 U.S.C. 1710(f) and (g) and 1722A, VA must collect copayments from certain veterans for VA-furnished hospital care and medical services. VA implements the requirements to assess such copayments in 38 CFR 17.108, 17.110, and 17.111. However, veterans eligible for hospital care and medical services based on specified toxic exposures under section 1710(a)(2)(F) and (e) are not required to pay copayments for such health care. VA exempts these veterans from copayments in §§ 17.108(e), 17.110(c), and 17.111(f). However, pursuant to 38 CFR 17.36(d)(3)(iii), for care not related to such exposure, these priority category 6 veterans are placed in priority category 7 or 8, as applicable, for all other VA hospital care and medical services (if the veteran agrees to pay the applicable copayment for matters not covered by priority category 6, i.e., treatment for illnesses or conditions not related to the exposure that served as the veteran's basis for enrollment in priority category 6).

We would amend current §§ 17.108(e)(2), 17.110(c)(4), and 17.111(f)(5) to reflect that copayment requirements do not apply to Camp Lejeune veterans, subject to § 17.400. We note that veterans who will be eligible for health care as Camp Lejeune

veterans, but are already enrolled in priority categories 1–5, would not be moved to priority category 6 as a result of this rulemaking because under 38 U.S.C. 1705(a), VA is required to enroll veterans in the order of the priority categories listed in that section. VA implements this requirement in 38 CFR 17.36(d)(3)(ii). In this manner, Camp Lejeune veterans enrolled in a higher priority category would not lose their enrollment status as a result of this rulemaking.

In proposed paragraph (b) of § 17.400, we would define Camp Lejeune as ''any area within the borders of the U.S. Marine Corps Base Camp Lejeune.'' Neither the statute nor the legislative history of Public Law 112–154 indicates Congress' intent as to the geographic area covered by the reference to ''Camp Lejeune, North Carolina'' in 38 U.S.C. 1710(e)(1)(F). The NAS report identifies contaminated drinking water as the method of exposure most likely to have the potential to cause the negative health effects noted in the study as being related to the chemical exposure. Because the water systems that supplied water to most of the residences and workplaces, in addition to other water systems on Camp Lejeune, have tested positive for contamination as noted in pages 29 and 67 of the NAS report, the geographic extent of Camp Lejeune for the purposes of this rule would include the entirety of the U.S. Marine Corps Base. We believe that this would allow VA to provide health care to all veterans who may have been exposed to toxic substances while at Camp Lejeune. U.S. Marine Corps Base Camp Lejeune includes base housing, training sites, and other facilities that would likely have exposed veterans who frequented these grounds to any toxic water.

We propose to define a Camp Lejeune veteran in § 17.400(b) as ''any veteran who served at Camp Lejeune on active duty, as defined in 38 U.S.C. 101(21), in the Armed Forces for at least 30 (consecutive or nonconsecutive) days during the period beginning on January 1, 1957, and ending on December 31, 1987.'' This definition aligns with the language in section 102 of the Act. We would include both consecutive and nonconsecutive days in the calculation of the 30-day requirement to clarify that VA will provide treatment to veterans who may have served at Camp Lejeune on multiple occasions that total at least 30 days. Although section 102 of the Act requires that the veteran served at Camp Lejeune for at least 30 days, the Act does not specify whether these days must be consecutive. For the purposes of exposure to toxins, we are not aware of a scientific or medical justification to interpret the law to require that the days be consecutive.

Veterans would apply for hospital care and medical services as a Camp Lejeune veteran in the same manner as any other veteran applies for VA health care: They would complete VA Form 10–10EZ, ''Application for Health Benefits.'' This is the form used by all veterans to apply for hospital care and medical services. See 38 CFR 17.36(d). We would amend this form to include a specific box for individuals to identify themselves as meeting the requirements of being a Camp Lejeune veteran.

As explained above, Camp Lejeune veterans, like all other veterans in priority category 6, would not be required to pay copayments for VA health care provided in connection with one of the 15 illnesses or conditions listed in 38 U.S.C. 1710(e)(1)(F)(i) through (xv). In § 17.400(d)(1), we would clearly state that the veteran would not be subject to copayments for care that is clinically associated with a condition or illness attributable to the veteran's service at Camp Lejeune. In § 17.400(d)(1)(A) through (O), we would restate the 15 conditions listed in 38 U.S.C. 1710(e)(1)(F)(i) through (xv). Although the copayment exemptions are addressed in the copayment regulations discussed above, (i.e., 38 CFR 17.108, 17.110, and 17.111) and the requirement that such care be for an illness or condition listed in the statute is established by section 1710(e)(1)(F), we believe it would be helpful and clear to restate these provisions in the regulation applicable to Camp Lejeune veterans.

We note that, under 38 U.S.C. 1710(e)(2)(B), VA may not provide hospital care or medical services under 38 U.S.C. 1710(a)(2)(F) to veterans who would otherwise be eligible for health care under section 1710(e) for ''a disability that is found, in accordance with guidelines issued by the Under Secretary for Health, to have resulted from a cause other than'' service at Camp Lejeune. A diagnosis of whether an individual has a specific illness or condition and identification of the cause of an illness or condition are clinical determinations. VA proposes to satisfy the requirements of the 38 U.S.C. 1710(e)(2)(B) limitation by implementing clinical practice guidelines developed by VA, as specifically authorized by the statute and referenced in 38 CFR 17.400(c). In § 17.400(c), we would explain that VA would assume that a veteran who has been diagnosed with one of the 15 illnesses or conditions listed in § 17.400(d)(1)(A)–(O) has that specific condition or illness due to his or her exposure to contaminated water during service at Camp Lejeune. However, if VA is able to determine clinically, through guidance set forth in clinical practice guidelines developed for the conditions and illnesses listed in this rule, that the illness or condition resulted from a cause other than exposure to contaminants at Camp Lejeune, then any treatment for that condition would remain subject to the copayments. We would develop these clinical practice guidelines over time, as VA subject matter experts build expertise in treating Camp Lejeune veterans. VA has been providing health care to Camp Lejeune veterans since the signing of the Act and has been developing clinical best practices for the provision of health care to Camp Lejeune veterans. VA would use this expertise, scientific evidence, and recognized standards of clinical practice in developing the clinical practice guidelines, and we expect that these guidelines will continue to develop as we gain further insight and knowledge about the connection between the exposures at Camp Lejeune and the 15 illnesses and conditions set forth in the law.

Section 17.400(d)(2) establishes that VA would retroactively reimburse certain copayments made by Camp Lejeune veterans for VA-provided health care. VA generally provides copayment exemptions to priority category 6 veterans for copayments as of the date they are assigned to that priority category, even if the veteran was previously enrolled in a lower priority category. However, because Camp Lejeune veteran status came into existence on August 6, 2012, we would consider them to be exempt from copayments as of that date only if they seek status as a Camp Lejeune veteran no later than September 11, 2015. We believe that 2 years would provide veterans sufficient time to learn about the new status and notify VA that they meet the requirements to be a Camp Lejeune veteran.

Since the Act was signed into law on August 6, 2012, this is the earliest date for which VA is authorized to reimburse any copayments previously charged to Camp Lejeune veterans pursuant to this regulation.

Effect of Rulemaking

The Code of Federal Regulations, as proposed to be revised by this proposed rulemaking, would represent the exclusive legal authority on this subject. No contrary rules or procedures would be authorized. All VA guidance would be read to conform with this proposed rulemaking if possible or, if not

possible, such guidance would be superseded by this rulemaking.

Administrative Procedure Act

In accordance with 5 U.S.C. 553(b)(B), the Secretary of Veterans Affairs finds good cause to issue this proposed rule with prior notice and an abbreviated opportunity for public comment. This proposed rule is necessary to provide clarity regarding VA's duty to provide health care to veterans who may have been exposed to toxic substances due to their service at Camp Lejeune. Section 102 of Public Law 112–154 requires VA to provide hospital care and medical services to Camp Lejeune veterans for the listed conditions and illnesses as of August 6, 2012. Many of the 15 listed conditions or illnesses are life-threatening and require immediate medical care. VA is capable of treating Camp Lejeune veterans for such illnesses or conditions immediately, which may lead to improved health outcomes for many veterans. However, this proposed rule is necessary to provide VA with the necessary framework to immediately implement this statutory requirement.

This proposed rule clearly defines how VA proposes to identify and integrate Camp Lejeune veterans into its enrollment system so VA can provide necessary health care to these veterans. For example, Public Law 112–154 requires VA to provide hospital care and medical services to ''a veteran who served on active duty in the Armed Forces at Camp Lejeune, North Carolina, for not fewer than 30 days during the period beginning on January 1, 1957, and ending on December 31, 1987.'' The legislation, however, does not define the scope of who should be considered a Camp Lejeune veteran. This rule at § 17.400(b) in the definition for ''Camp Lejeune veteran'' would explain that ''[a] veteran served at Camp Lejeune if he or she was stationed at Camp Lejeune, or if his or her professional duties required travel to Camp Lejeune.'' The proposed rule also explains that the 30-day minimum service requirement may be ''consecutive or nonconsecutive'' days. Without this provision, VA would not be able to clearly identify all the veterans who should be provided the necessary health care as a result of their service at Camp Lejeune. With these provisions VA will be able to identify those individuals who should be considered Camp Lejeune veterans and conduct outreach to the identified class of veterans. Although we expect most Camp Lejeune veterans to seek VA medical care for treatment of their illness or condition regardless of this rulemaking, there may be some veterans who may go without treatment if they are not identified as a Camp Lejeune veteran, and their illness or condition does not result in eligibility for enrollment. Because many of the 15 listed conditions or illnesses are life-threatening and require immediate medical care, an abbreviated comment period is necessary and appropriate to allow VA to provide medical care to all individuals identified as Camp Lejeune veterans as soon as possible.

Furthermore, under the provisions of the proposed rule, VA would be able to reimburse veterans for copayments that certain veterans may already have paid for illnesses or conditions identified in this rule. The shorter comment period will allow VA to proceed more quickly to a final rule stage and provide VA with the ability to reimburse unnecessary copayments to alleviate this financial hardship for some of these veterans.

For these reasons, the Secretary has concluded that a longer public comment period is unnecessary and contrary to the public interest. Accordingly, VA is issuing this proposed rule with an abbreviated comment period. VA will consider and address all comments that are received within 30 days of the date this proposed rule is published in the **Federal Register**.

Unfunded Mandates

The Unfunded Mandates Reform Act of 1995 requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before issuing any rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year. This proposed rule would have no such effect on State, local, and tribal governments, or on the private sector.

Paperwork Reduction Act

This proposed rule contains no new provisions constituting a collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521). However, we note that veterans would apply for hospital care and medical services as a Camp Lejeune veteran under § 17.400 by completing VA Form 10–10EZ, ''Application for Health Benefits,'' which is required under 38 CFR 17.36(d) for all hospital care and medical services. As discussed in a separate notice (78 FR 39832, July 2, 2013), we are amending this form, which will include a specific box for individuals to check to identify themselves as meeting the requirements of being a Camp Lejeune veteran. This particular amendment to the form will have no appreciable effect on the reporting burden for the revised VA Form 10–10EZ. We also do not anticipate a significant increase in the total number of applications filed because most Camp Lejeune veterans likely would have applied for VA medical care for treatment of their illness or condition regardless of this rulemaking.

Regulatory Flexibility Act

The Secretary hereby certifies that this proposed rule would not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act, 5 U.S.C. 601–12. This proposed rule would directly affect only individuals and would not affect any small entities. Therefore, pursuant to 5 U.S.C. 605(b), this proposed rulemaking is exempt from the initial and final flexibility analysis requirements of 5 U.S.C. 603 and 604.

Executive Order 12866 and Executive Order 13563

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health, and safety effects, and other advantages; distributive impacts; and equity). Executive Order 13563 (Improving Regulation and Regulatory Review) emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Executive Order 12866 (Regulatory Planning and Review) defines a ''significant regulatory action,'' requiring review by the Office of Management and Budget (OMB) as ''any regulatory action that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or

the principles set forth in this Executive Order.''

VA has examined the economic, interagency, budgetary, legal, and policy implications of this regulatory action, and it has been determined not to be a significant regulatory action under Executive Order 12866. VA's impact analysis can be found as a supporting document at *http://www.regulations.gov,* usually within 48 hours after the rulemaking document is published. Additionally, a copy of the rulemaking and its impact analysis are available on VA's Web site at *http://www1.va.gov/orpm/,* by following the link for ''VA Regulations Published.''

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance numbers and titles for the programs affected by this rule are 64.007, Blind Rehabilitation Centers; 64.008, Veterans Domiciliary Care; 64.009, Veterans Medical Care Benefits; 64.010, Veterans Nursing Home Care; 64.012, Veterans Prescription Service; 64.013, Veterans Prosthetic Appliances; 64.014, Veterans State Domiciliary Care; 64.015, Veterans State Nursing Home Care; and 64.022, Veterans Home Based Primary Care.

Signing Authority

The Secretary of Veterans Affairs, or designee, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the Department of Veterans Affairs. Jose D. Riojas, Chief of Staff, Department of Veterans Affairs, approved this document on July 31, 2013, for publication.

List of Subjects in 38 CFR Part 17

Administrative practice and procedure, Alcohol abuse, Alcoholism, Claims, Day care, Dental health, Drug abuse, Health care, Health facilities, Health professions, Health records, Homeless, Medical devices, Medical research, Mental health programs, Nursing homes, and Veterans.

Dated: September 5, 2013.

Robert C. McFetridge,

Director, Regulation Policy and Management, Office of the General Counsel, Department of Veterans Affairs.

For the reasons set forth in the preamble, we propose to amend 38 CFR part 17 as follows:

PART 17—MEDICAL

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 38 U.S.C. 501, and as noted in specific sections.

■ 2. Amend § 17.36(b)(6) by removing ''38 U.S.C. 1710(e);'' and adding, in its place, ''38 U.S.C. 1710(e); Camp Lejeune veterans pursuant to § 17.400;''.

■ 3. Amend § 17.108(e)(2) by removing ''or post-Gulf War combat-exposed veterans'' and adding, in its place, ''post-Gulf War combat-exposed veterans, or Camp Lejeune veterans pursuant to § 17.400.''

■ 4. Amend § 17.110(c)(4) by removing ''or post-Persian Gulf War combat-exposed veterans'' and adding, in its place, ''post-Persian Gulf War combat-exposed veterans, or Camp Lejeune veterans pursuant to § 17.400.''

■ 5. Amend § 17.111(f)(5) by removing ''or post-Persian Gulf War combat-exposed veterans'' and adding, in its place, ''post-Persian Gulf War combat-exposed veterans, or Camp Lejeune veterans pursuant to § 17.400.''

■ 6. Add § 17.400 to read as follows:

§ 17.400 Hospital care and medical services for Camp Lejeune veterans.

(a) *General.* In accordance with this section, VA will provide hospital care and medical services to Camp Lejeune veterans. Camp Lejeune veterans will be enrolled pursuant to § 17.36(b)(6).

(b) *Definitions.* For the purposes of this section:

Camp Lejeune means any area within the borders of the U.S. Marine Corps Base Camp Lejeune or Marine Corps Air Station New River, North Carolina.

Camp Lejeune veteran means any veteran who served at Camp Lejeune on active duty, as defined in 38 U.S.C. 101(21), in the Armed Forces for at least 30 (consecutive or nonconsecutive) days during the period beginning on January 1, 1957, and ending on December 31, 1987. A veteran served at Camp Lejeune if he or she was stationed at Camp Lejeune, or traveled to Camp Lejeune as part of his or her professional duties.

(c) *Limitations.* For a Camp Lejeune veteran, VA will assume that illnesses or conditions listed in paragraph (d)(1)(A) through (O) of this section are attributable to the veteran's active duty in the Armed Forces unless it is clinically determined, under VA clinical practice guidelines, that such an illness or condition is not attributable to the veteran's service.

(d) *Copayments.* (1) *Exemption.* Camp Lejeune veterans are not subject to copayment requirements for hospital care and medical services provided on or after August 6, 2012, for the following illnesses and conditions:

(A) Esophageal cancer;
(B) Lung cancer;
(C) Breast cancer;
(D) Bladder cancer;
(E) Kidney cancer;
(F) Leukemia;
(G) Multiple myeloma;
(H) Myleodysplasic syndromes;
(I) Renal toxicity;
(J) Hepatic steatosis;
(K) Female infertility;
(L) Miscarriage;
(M) Scleroderma;
(N) Neurobehavioral effects; and
(O) Non-Hodgkin's Lymphoma.

(2) *Retroactive Exemption.* VA will reimburse Camp Lejeune veterans for any copayments paid to VA for hospital care and medical services provided for one of the illnesses or conditions listed in paragraph (d)(1) of this section, if the following are true:

(A) The veteran requested Camp Lejeune veteran status no later than September 11, 2015; and

(B) VA provided the hospital care or medical services to the Camp Lejeune veteran on or after August 6, 2012.

(Authority: 38 U.S.C. 1710)

[FR Doc. 2013–22050 Filed 9–10–13; 8:45 am]

BILLING CODE 8320–01–P

Notices

Federal Register

Vol. 78, No. 176

Wednesday, September 11, 2013

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Illinois Advisory Committee for Fact Finding on Immigrant Communities in Illinois

AGENCY: Commission on Civil Rights.

ACTION: Notice of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Illinois Advisory Committee (Committee) will hold a fact finding meeting on Monday, September 23, 2013, for the purpose of gathering information and hearing recommendations regarding the civil rights implications of the comprehensive immigration reform bill on Illinois' immigrant communities. The purpose of the meeting will be to hear statements about whether the bill, if passed, would or could disparately impact categories of individuals or create unequal opportunities. The meeting will also address whether the bill remedies existing civil rights concerns of immigrant communities. The testimony presented at the meeting will address these research goals.

Members of the public are invited and welcomed to make statements into the record at the meeting starting at 4:00 p.m. Members of the public are also entitled to submit written comments; the comments must be received in the regional office by October 23, 2013. Written comments may be mailed to the Midwestern Regional Office, U.S. Commission on Civil Rights, 55 W. Monroe St., Suite 410, Chicago, IL 60615. They may also be faxed to the Commission at (312) 353–8311, or emailed to the Commission at *callen@usccr.gov.* Persons who desire additional information may contact the Midwestern Regional Office at (312) 353–8311.

Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Midwestern Regional Office at least ten (10) working days before the scheduled date of the meeting.

Records generated from this meeting may be inspected and reproduced at the Midwestern Regional Office, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Illinois Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's Web site, *http://www.usccr.gov,* or may contact the Midwestern Regional Office at the above email or street address.

Agenda

The meeting will consist of panels of presenters offering testimony about the topic. Scheduled presenters include Chicago immigration attorney Mike Jarecki, Lisa Palumbo of the Legal Assistance Foundation, DePaul College of Law Professor R. Linus Chan, Chicago lawyer Tejas Shah, representatives from the National Immigrant Justice Center and Advancing Justice-Chicago, and other experts representing various viewpoints and positions on the topic.

DATES: The meeting will be held on Monday, September 23, 2013, at 11:00 a.m. until 5:00 p.m.

ADDRESSES: The meeting will be held at DePaul University's North Café Room, 1 E. Jackson Blvd., 11th Floor, Chicago, IL 60604.

Dated: September 6, 2013.

David Mussatt,

Acting Chief, Regional Programs Coordination Unit.

[FR Doc. 2013–22108 Filed 9–10–13; 8:45 am]

BILLING CODE 6335–01–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–552–801]

Certain Frozen Fish Fillets From the Socialist Republic of Vietnam: Preliminary Results of the Antidumping Duty Administrative Review and New Shipper Review; 2011–2012

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the ''Department'') is conducting the ninth administrative review and eleventh new shipper review (''NSR'') of the antidumping duty order on certain frozen fish fillets (''fish fillets'') from the Socialist Republic of Vietnam (''Vietnam'').[1] The Department has preliminarily determined that new shipper review respondent, Golden Quality Seafood Corporation (''Golden Quality''), as well as administrative review mandatory respondents, Hung Vuong Group (''HVG'')[2] and Vinh Hoan Corporation (''Vinh Hoan''),[3] sold subject merchandise in the United States at prices below normal value (''NV'') during the period of review (''POR'') August 1, 2011, through July 31, 2012. If these preliminary results are adopted in the final results, the Department will instruct U.S. Customs and Border Protection (''CBP'') to assess antidumping duties on all appropriate entries of subject merchandise during the POR. Interested parties are invited to comment on these preliminary results.

DATES: Effective Date: September 11, 2013.

FOR FURTHER INFORMATION CONTACT: Julia Hancock (Vinh Hoan), Alex Montoro (Golden Quality) or Paul Walker (HVG), AD/CVD Operations, Office 9, Import Administration, International Trade

[1] *See Notice of Antidumping Duty Order: Certain Frozen Fish Fillets From the Socialist Republic of Vietnam,* 68 FR 47909 (August 12, 2003) (''*Order*'').

[2] The Hung Vuong Group includes: An Giang Fisheries Import and Export Joint Stock Company, Asia Pangasius Company Limited, Ben Tre Forestry and Aquaproduct Import-Export JSC, Europe Joint Stock Company, Hung Vuong Joint Stock Company, Hung Vuong Mascato Company Limited, Hung Vuong—Vinh Long Co., Ltd., and Hung Vuong—Sa Dec Co., Ltd.

[3] Vinh Hoan includes Vinh Hoan Corporation and its affiliates Van Duc Food Export Joint Company (''Van Duc'') and Van Duc Tien Giang (''VDTG'').

Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone 202–482–1394, 202–482–0238 or 202–482–0413, respectively.

SUPPLEMENTARY INFORMATION:

Scope of the Order

The product covered by the order is frozen fish fillets, including regular, shank, and strip fillets and portions thereof, whether or not breaded or marinated, of the species *Pangasius Bocourti, Pangasius Hypophthalmus* (also known as *Pangasius Pangasius*), and *Pangasius Micronemus.* The products are classifiable under tariff article codes 1604.19.4000, 1604.19.5000, 0305.59.4000, 0304.29.6033 (Frozen Fish Fillets of the species *Pangasius* including basa and tra) of the Harmonized Tariff Schedule of the United States (''HTSUS'').[4] Although the HTSUS subheading is provided for convenience and Customs purposes, our written description of the scope of the order is dispositive.[5]

Methodology

The Department has conducted these reviews in accordance with sections 751(a)(1)(B) and 751(a)(2)(A)–(B) of the Tariff Act of 1930, as amended (the ''Act''). Constructed export prices and export prices have been calculated in accordance with section 772 of the Act. Because Vietnam is a non-market economy (''NME'') within the meaning of section 771(18) of the Act, NV has been calculated in accordance with section 773(c) of the Act. Specifically, the administrative review mandatory respondents' and NSR respondent's factors of production have been valued using surrogate values from Indonesia, which is economically comparable to Vietnam and is a significant producer of comparable merchandise.

For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum. The Preliminary Decision Memorandum is a public document and is on file electronically *via* Import Administration's Antidumping and Countervailing Duty Centralized Electronic Service System (''IA ACCESS''). IA ACCESS is available to registered users at *http://iaaccess.trade.gov,* and is available to all parties in the Central Records Unit, room 7046 of the main Department of Commerce building. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly on the Internet at *http://www.trade.gov/ia/.* The signed Preliminary Decision Memorandum and the electronic versions of the Preliminary Decision Memorandum are identical in content.

Preliminary Results of Review

Regarding the administrative review, the Department preliminarily determines that the following weighted-average dumping margins exist for the period August 1, 2011, through July 31, 2012:

Exporter	Weighted-average margin (dollars/kilogram) [6]
Vinh Hoan Corporation [7]	0.42
Hung Vuong Group [8]	2.15
An My Fish Joint Stock Company	0.99
Anvifish Joint Stock Company [9]	0.99
Asia Commerce Fisheries Joint Stock Company	0.99
Binh An Seafood Joint Stock Company	0.99
Cadovimex II Seafood Import-Export and Processing Joint Stock Company	0.99
Cantho Import-Export Seafood Joint Stock Company	0.99
Cuu Long Fish Import-Export Corporation [10]	0.99
Cuu Long Fish Joint Stock Company	0.99
East Sea Seafoods Limited Liability Company [11]	0.99
Green Farms Seafood Joint Stock Company	0.99
Hiep Thanh Seafood Joint Stock Company	0.99
Hoa Phat Seafood Import-Export and processing JSC	0.99
International Development & Investment Corporation	0.99
NTSF Seafoods Joint Stock Company	0.99
QVD Food Company Ltd.[12]	0.99
Saigon-Mekong Fishery Co., Ltd.	0.99
Seafood Joint Stock Company No.4 Branch Dongtam Fisheries Processing Company	0.99

[4] Until July 1, 2004, these products were classifiable under tariff article codes 0304.20.6030 (''Frozen Catfish Fillets''), 0304.20.6096 (''Frozen Fish Fillets, NESOI''), 0304.20.6043 (''Frozen Freshwater Fish Fillets'') and 0304.20.6057 (''Frozen Sole Fillets'') of the HTSUS. Until February 1, 2007, these products were classifiable under tariff article code 0304.20.6033 (''Frozen Fish Fillets of the species *Pangasius* including basa and tra'') of the HTSUS.

[5] *See* ''Certain Frozen Fish Fillets From the Socialist Republic of Vietnam: Decision Memorandum for the Preliminary Results of the 2011–2012 Antidumping Duty Administrative Review and New Shipper Review,'' dated concurrently with this notice (''Preliminary Decision Memorandum'') and incorporated herein by reference, for a complete description of the Scope of the Order.

[6] In the third administrative review of this order, the Department determined that it would calculate per-unit assessment and cash deposit rates for all future reviews. *See Certain Frozen Fish Fillets from the Socialist Republic of Vietnam: Final Results of Antidumping Duty Administrative Review and Partial Rescission,* 73 FR 15479 (March 24, 2008).

[7] This rate is applicable to the Vinh Hoan Group which includes: Vinh Hoan, Van Duc, and VDTG. In the sixth administrative review of this order, the Department found Vinh Hoan, Van Duc, and VDTG to be a single entity and, because there have been no changes to this determination since that administrative review, we continue to find these companies to be part of a single entity. Therefore, we will assign this rate to the companies in the single entity. *See Certain Frozen Fish Fillets From the Socialist Republic of Vietnam: Notice of Preliminary Results and Partial Rescission of the Sixth Antidumping Duty Administrative Review and Sixth New Shipper Review,* 75 FR 56061 (September 15, 2010).

[8] This rate is applicable to the Hung Vuong Group which includes: An Giang Fisheries Import and Export Joint Stock Company, Asia Pangasius Company Limited, Europe Joint Stock Company, Hung Vuong Joint Stock Company, Hung Vuong Mascato Company Limited, Hung Vuong—Vinh Long Co., Ltd., and Hung Vuong—Sa Dec Co., Ltd.

[9] Includes the trade name Anvifish Co., Ltd.

[10] Includes the trade name CL Panga Fish.

[11] Includes the trade names East Sea Seafoods LLC and ESS.

[12] This rate is also applicable to QVD Dong Thap Food Co., Ltd and Thuan Hung Co., Ltd. (''THUFICO''). In the second review of this order, the Department found QVD, QVD Dong Thap Food Co., Ltd. and THUFICO to be a single entity and, because there have been no changes to this determination since that administrative review, we continue to find these companies to be part of a single entity. Therefore, we will assign this rate to the companies in the single entity. *See Certain Frozen Fish Fillets from the Socialist Republic of Vietnam: Preliminary Results of Antidumping Duty Administrative Review,* 71 FR 53387 (September 11, 2006).

Exporter	Weighted-average margin (dollars/kilogram) [6]
Southern Fishery Industries Company Ltd.	0.99
Sunrise Corporation	0.99
Thien Ma Seafood Co., Ltd.	0.99
To Chau Joint Stock Company	0.99
Viet Phu Food & Fish Corporation	0.99
Vinh Quang Fisheries Corporation	0.99
Vietnam-Wide Rate [13]	2.11

Regarding the NSR, the Department preliminarily determines that the following weighted-average dumping margin exists for the period August 1, 2011, through July 31, 2012:

Manufacturer	Exporter	Weighted-average margin (dollars/kilogram)
Golden Quality Seafood Corporation	Golden Quality Seafood Corporation	0.24

Disclosure, Public Comment & Opportunity To Request a Hearing

The Department will disclose the calculations used in our analysis to parties in these reviews within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b).

Interested parties may submit case briefs within 30 days after the date of publication of these preliminary results of reviews.[14] Rebuttals to case briefs, which must be limited to issues raised in the case briefs, must be filed within five days after the time limit for filing case briefs.[15] Parties who submit arguments are requested to submit with the argument (a) a statement of the issue, (b) a brief summary of the argument, and (c) a table of authorities.[16] Parties submitting briefs should do so pursuant to the Department's electronic filing system, IA ACCESS.

Any interested party may request a hearing within 30 days of publication of this notice.[17] Hearing requests should contain the following information: (1) The party's name, address, and telephone number; (2) the number of participants; and (3) a list of the issues to be discussed. Oral presentations will be limited to issues raised in the briefs. If a request for a hearing is made, parties will be notified of the time and date for the hearing to be held at the U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230.[18]

The Department intends to issue the final results of this administrative review and this NSR, which will include the results of our analysis of all issues raised in the case briefs, within 120 days of publication of these preliminary results in the **Federal Register**, pursuant to section 751(a)(3)(A) of the Act.

Deadline for Submission of Publicly Available Surrogate Value Information

In accordance with 19 CFR 351.301(c)(3)(ii), the deadline for submission of publicly available information to value factors of production under 19 CFR 351.408(c) is 20 days after the date of publication of the preliminary results. In accordance with 19 CFR 351.301(c)(1), if an interested party submits factual information less than ten days before or on the applicable deadline for submission of such factual information, an interested party may submit factual information to rebut, clarify, or correct the factual information no later than ten days after such factual information is served on the interested party. However, the Department generally will not accept in the rebuttal submission additional or alternative surrogate value information not previously on the record, if the deadline for submission of surrogate value information has passed.[19] Furthermore, the Department generally will not accept business proprietary information in either the surrogate value submissions or the rebuttals thereto, as the regulation regarding the submission of surrogate values allows only for the submission of publicly available information.[20] Finally, for each piece of factual information submitted with surrogate value rebuttal comments, the interested party must provide a written explanation of what information that is already on the record of the ongoing proceeding that the factual information is rebutting, clarifying, or correcting.

Assessment Rates

Upon issuance of the final results, the Department will determine, and CBP shall assess, antidumping duties on all appropriate entries covered by these review.[21] The Department intends to issue assessment instructions to CBP 15 days after the publication date of the final results of these reviews.

For any individually examined respondent whose weighted average dumping margin is above *de minimis* (*i.e.,* 0.50 percent) in the final results of these reviews, the Department will calculate importer-specific assessment rates on the basis of the ratio of the total amount of dumping calculated for the importer's examined sales to the total entered value of sales, in accordance with 19 CFR 351.212(b)(1). Where an

[13] The Vietnam-wide rate includes the following companies which are under review, but which did not submit a separate rate application or certification: East Sea Seafood Co., Ltd., East Sea Seafoods Joint Venture Co., Ltd., GODACO Seafood Joint Stock Company, Hung Vuong Seafood Joint Stock Company, Nam Viet Company Limited, Quang Minh Seafood Co., Ltd. and Vinh Hoan Company Ltd.

[14] *See* 19 CFR 351.309(c)(1)(ii).

[15] *See* 19 CFR 351.309(d)(1)–(2).

[16] *See* 19 CFR 351.309(c)(2), (d)(2).

[17] *See* 19 CFR 351.310(c).

[18] *See* 19 CFR 351.310(d).

[19] *See Glycine From the People's Republic of China: Final Results of Antidumping Duty Administrative Review and Final Rescission, in Part,* 72 FR 58809 (October 17, 2007), and accompanying Issues and Decision Memorandum at Comment 2.

[20] *See* 19 CFR 351.301(c)(3).

[21] *See* 19 CFR 351.212(b).

importer- (or customer-) specific *ad valorem* rate is greater than *de minimis,* the Department will instruct CBP to collect the appropriate duties at the time of liquidation.[22] Where either a respondent's weighted average dumping margin is zero or *de minimis,* or an importer- (or customer-) specific *ad valorem* is zero or *de minimis,* the Department will instruct CBP to liquidate appropriate entries without regard to antidumping duties.[23] For the respondents that were not selected for individual examination in this administrative review and that qualified for a separate rate, the assessment rate will be based on the average of the mandatory respondents.[24] We intend to instruct CBP to liquidate entries containing subject merchandise exported by the Vietnam-wide entity at the Vietnam-wide rate.

The Department recently announced a refinement to its assessment practice in NME cases. Pursuant to this refinement in practice, for entries that were not reported in the U.S. sales databases submitted by companies individually examined during the administrative review, the Department will instruct CBP to liquidate such entries at the Vietnam-wide rate. Additionally, if the Department determines that an exporter had no shipments of the subject merchandise, any suspended entries that entered under that exporter's case number (*i.e.,* at that exporter's rate) will be liquidated at the Vietnam-wide rate.[25]

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of the final results of these reviews for shipments of the subject merchandise from Vietnam entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided by sections 751(a)(2)(C) of the Act: (1) For the companies listed above that have a separate rate, the cash deposit rate will be that established in the final results of these reviews (except, if the rate is zero or *de minimis,* then zero cash deposit will be required); (2) for previously investigated or reviewed Vietnam and non-Vietnam exporters not listed above that received a separate rate in a prior segment of this proceeding, the cash deposit rate will continue to be the existing exporter-specific rate; (3) for all Vietnam exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be that for the Vietnam -wide entity; and (4) for all non-Vietnam exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to the Vietnam exporter that supplied that non-Vietnam exporter.

With respect to Golden Quality, the new shipper respondent, the Department has established a combination cash deposit rate for this company consistent with its practice as follows: (1) For subject merchandise produced and exported by Golden Quality, the cash deposit rate will be the rate established for Golden Quality in the final results of the NSR; (2) for subject merchandise exported by Golden Quality, but not produced by Golden Quality, the cash deposit rate will be the rate for the Vietnam-wide entity; and (3) for subject merchandise produced by Golden Quality but not exported by Golden Quality, the cash deposit rate will be the rate applicable to the exporter.

These deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during the POR. Failure to comply with this requirement could result in the Department's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This preliminary determination is issued and published in accordance with sections 751(a)(1), 751(a)(2)(B), and 777(i)(1) of the Act.

Dated: September 3, 2013.

Paul Piquado,

Assistant Secretary for Import Administration.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum:

1. Case History
2. Scope of the Order
3. Preliminary Determination of No Shipments
4. *Bona Fides* Analysis
5. Non-Market Economy Country Status
6. Collapsing
7. Separate Rates
8. Separate Rate Calculation for Companies Not Individually Examined
9. Vietnam-Wide Entity
10. Surrogate Country
11. Date of Sale
12. Determination of Comparison Method
13. Results of Differential Pricing Analysis
14. Comparisons to Normal Value
15. U.S. Price
16. Normal Value
17. Factor Valuations
18. Currency Conversion

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[22] *See* 19 CFR 351.212(b)(1).

[23] *See* 19 CFR 351.106(c)(2).

[24] *See* Preliminary Decision Memorandum.

[25] For a full discussion of this practice, *see Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties,* 76 FR 65694 (October 24, 2011).

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–977]

High Pressure Steel Cylinders From the People's Republic of China; Rescission of the 2011–2013 Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (''the Department'') is rescinding the administrative review of the antidumping duty order on high pressure steel cylinders from the People's Republic of China (''PRC'') for the period of review (''POR''), December 15, 2011, to May 31, 2013. This rescission is based on the timely withdrawal of the request for review by the only interested party that requested a review.

DATES: *Effective Date:* September 11, 2013.

FOR FURTHER INFORMATION CONTACT: Julia Hancock, AD/CVD Operations, Office 9, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 482–1394.

Background

On June 3, 2013, the Department published a notice of opportunity to request an administrative review of the antidumping duty order on high pressure steel cylinders from the PRC.[1] In response, on July 1, 2013, Beijing Tianhai Industry Co., Ltd. (''BTIC'') timely requested an administrative review of entries of the subject merchandise during the POR from BTIC.[2] Therefore, on August 1, 2013, the Department initiated a review of BTIC.

[1] *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation: Opportunity to Request Administrative Review,* 78 FR 33061 (June 3, 2013) (''*Opportunity Notice*'').

[2] June 30, 2013, is the deadline for submitting requests for review as stated in the *Opportunity*

Continued

In a letter dated August 23, 2013, BTIC withdrew its request for review of itself. No other parties requested a review.

Scope of the Order

The merchandise covered by the order is seamless steel cylinders designed for storage or transport of compressed or liquefied gas (''high pressure steel cylinders''). High pressure steel cylinders are fabricated of chrome alloy steel including, but not limited to, chromium-molybdenum steel or chromium magnesium steel, and have permanently impressed into the steel, either before or after importation, the symbol of a U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (''DOT'') approved high pressure steel cylinder manufacturer, as well as an approved DOT type marking of DOT 3A, 3AX, 3AA, 3AAX, 3B, 3E, 3HT, 3T, or DOT–E (followed by a specific exemption number) in accordance with the requirements of sections 178.36 through 178.68 of Title 49 of the Code of Federal Regulations, or any subsequent amendments thereof. High pressure steel cylinders covered by the investigation have a water capacity up to 450 liters, and a gas capacity ranging from 8 to 702 cubic feet, regardless of corresponding service pressure levels and regardless of physical dimensions, finish or coatings.

Excluded from the scope of the order are high pressure steel cylinders manufactured to UN–ISO–9809–1 and 2 specifications and permanently impressed with ISO or UN symbols. Also excluded from the investigation are acetylene cylinders, with or without internal porous mass, and permanently impressed with 8A or 8AL in accordance with DOT regulations.

Merchandise covered by the order is classified in the Harmonized Tariff Schedule of the United States (''HTSUS'') under subheading 7311.00.00.30. Subject merchandise may also enter under HTSUS subheadings 7311.00.00.60 or 7311.00.00.90. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise under the investigation is dispositive.

Rescission of Administrative Review

Pursuant to 19 CFR 351.213(d)(1), the Secretary will rescind an administrative review, in whole or in part, if the party that requested the review withdraws the request within 90 days of the date of publication of the notice of initiation of the requested review. BTIC timely withdrew its request for review of itself. Because no other party requested a review, pursuant to 19 CFR 351.213(d)(1), the Department is rescinding the entire administrative review of the antidumping duty order on high pressure steel cylinders from the PRC for the period December 15, 2011, to May 31, 2013.

Assessment

The Department will instruct U.S. Customs and Border Protection (''CBP'') to assess antidumping duties on all appropriate entries. Antidumping duties shall be assessed at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, in accordance with 19 CFR 351.212(c)(1)(i). The Department intends to issue assessment instructions directly to CBP 15 days after the date of publication of this notice in the **Federal Register**, if appropriate.

Notification to Importers

This notice serves as a reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Notification Regarding Administrative Protective Orders

This notice also serves as a reminder to parties subject to administrative protective orders (''APO'') of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305, which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

This notice is issued and published in accordance with section 751(a) and 777(i) of the Tariff Act of 1930, as amended, and 19 CFR 351.213(d)(4).

Dated: September 5, 2013.

Christian Marsh,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

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Notice. However, because June 30, 2013, was a Sunday, BITC filed its request for review on the next business day, July 1, 2013. See 19 CFR 351.303(b).

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–929]

Small Diameter Graphite Electrodes From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2011–2012

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: On March 8, 2013, the Department of Commerce (the Department) published the preliminary results of the administrative review of the antidumping duty order on small diameter graphite electrodes from the People's Republic of China (the PRC). The period of review (POR) is February 1, 2011, through January 31, 2012. For the final results, we continue to find that certain companies covered by this review have not made sales of subject merchandise at less than normal value, and that other companies are now part of the PRC-wide entity.

DATES: *Effective Date:* September 11, 2013.

FOR FURTHER INFORMATION CONTACT: Dmitry Vladimirov or Minoo Hatten, AD/CVD Operations, Office 1, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 482–0665 or (202) 482–1690, respectively.

SUPPLEMENTARY INFORMATION:

Background

On March 8, 2013, the Department published the preliminary results of the administrative review of the antidumping duty order on small diameter graphite electrodes from the PRC.[1] We received case and rebuttal briefs with respect to the *Preliminary Results*.

We have conducted this administrative review in accordance with section 751 of the Tariff Act of 1930, as amended (the Act).

[1] *See Small Diameter Graphite Electrodes From the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review and Partial Rescission; 2011–2012,* 78 FR 14964 (March 8, 2013) (*Preliminary Results*), and accompanying Preliminary Decision Memorandum.

Scope of the Order

The merchandise covered by the order includes all small diameter graphite electrodes with a nominal or actual diameter of 400 millimeters (16 inches) or less and graphite pin joining systems for small diameter graphite electrodes. Small diameter graphite electrodes and graphite pin joining systems for small diameter graphite electrodes that are subject to the order are currently classified under the Harmonized Tariff Schedule of the United States (HTSUS) subheadings 8545.11.0010 and 3801.10. The HTSUS numbers are provided for convenience and customs purposes. A full description of the scope of the order is contained in the Issues and Decision Memorandum,[2] which is hereby adopted by this notice. The written description of the scope of the order is dispositive.

Determination of No Shipments

UK Carbon and Graphite Co., Ltd. (UKCG) timely filed a ''no shipment'' certification stating that it had no entries of subject merchandise during the POR.[3] We subsequently confirmed with U.S. Customs and Border Protection (CBP) the ''no shipment'' claim made by UKCG.[4] Based on the certifications by UKCG and CBP's confirmation, we determine that UKCG did not have any reviewable entries of subject merchandise during the POR, and will issue appropriate instructions that are consistent with our ''automatic assessment'' clarification, for these final results.[5]

Analysis of Comments Received

All issues raised in the case briefs by parties to this administrative review are addressed in the Issues and Decision Memorandum. A list of the issues raised is attached to this notice as Appendix 1. The Issues and Decision Memorandum is a public document and is on file electronically *via* Import Administration's Antidumping and Countervailing Duty Centralized Electronic Service System (IA ACCESS). Access to IA ACCESS is available to registered users at *http://iaaccess.trade.gov* and is available to all parties in the Central Records Unit, room 7046 of the main Department of Commerce building. In addition, a complete version of the Issues and Decision Memorandum can be accessed directly on the Import Administration Web site at *http://ia.ita.doc.gov/frn/index.html.* The signed Issues and Decision Memorandum and the electronic versions of the Issues and Decision Memorandum are identical in content.

Separate Rate for a Non-Selected Company

In the *Preliminary Results,* we found that Xinghe County Muzi Carbon Co., Ltd. (Muzi Carbon) demonstrated its eligibility for separate-rate status.[6] We have not received any information since then that would lead us to reconsider our preliminary finding. Therefore, we continue to determine that Muzi Carbon is eligible for separate-rate status.

The PRC-Wide Entity

In the *Preliminary Results,* we determined that four companies[7] for which a review was requested did not demonstrate their eligibility for a separate rate and are properly considered part of the PRC-wide entity.[8] We have not received any information since then that would lead us to reconsider our preliminary determination with respect to these four companies. Therefore, we continue to find that these four companies should be treated as part of the PRC-wide entity and subject to the PRC-wide entity rate.

In the *Preliminary Results,* we stated our intent not to rescind the review for certain companies that remain a part of the PRC-wide entity, notwithstanding timely withdrawal of review requests for these companies, because the PRC-wide entity remains under review.[9] Since the *Preliminary Results,* we did not receive any information that would cause us to revisit our preliminary determination not to rescind the review with respect to these companies.

Consistent with our practice, we will issue appropriate instructions to CBP for any entries made by the companies that remain a part of the PRC-wide entity during the POR.

Changes Since the Preliminary Results

Based on our analysis of the comments received, we have revised our calculation of the surrogate financial ratios used in the margin calculations for mandatory respondents, Fangda Group[10] and Fushun Jinly Petrochemical Carbon Co., Ltd. (Fushun Jinly).[11] This revision did not change the weighted-average margins we calculated in the *Preliminary Results.*

Final Results of the Review

We determine that the following percentage weighted-average dumping margins exist for the period February 1, 2011, through January 31, 2012:

Company	Margin (percent)
Fushun Jinly Petrochemical Carbon Co., Ltd.	0.00
Beijing Fangda Carbon Tech Co., Ltd.	0.00
Chengdu Rongguang Carbon Co., Ltd.	0.00
Fangda Carbon New Material Co., Ltd.	0.00
Fushun Carbon Co., Ltd.	0.00
Hefei Carbon Co., Ltd.	0.00
Xinghe County Muzi Carbon Co., Ltd.	0.00
PRC-wide entity *	159.64

* The PRC-Wide entity includes the companies listed in Appendix 2.

Assessment

The Department will determine, and CBP shall assess, antidumping duties on all appropriate entries covered by this review pursuant to 19 CFR 351.212(b). We intend to issue assessment instructions to CBP 15 days after the date of publication of the final results of review.

For Fushun Jinly, Muzi Carbon, and the five companies comprising the Fangda Group we will instruct CBP to liquidate all entries during the POR without regard to antidumping duties because their weighted-average

[2] *See* Memorandum to Paul Piquado, Assistant Secretary for Import Administration, From Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, entitled ''Issues and Decision Memorandum for the Final Results of Antidumping Duty Administrative Review of Small Diameter Graphite Electrodes from the People's Republic of China'' dated concurrently with this notice (Issues and Decision Memorandum).

[3] *See* Letter from UKCG, dated May 29, 2012.

[4] *See* CBP inquiry message 3207305, dated July 26, 2013.

[5] *See Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties,* 76 FR 65694 (October 24, 2011).

[6] *See Preliminary Results,* and accompanying Preliminary Decision Memorandum at 6–7.

[7] These companies are Dechang Shida Carbon Co., Ltd., Shida Carbon Group, Sichuan Shida Trading Co., Ltd., and Sichuan Guanghan Shida Carbon Co., Ltd.

[8] *See Preliminary Results,* and accompanying Preliminary Decision Memorandum at 8.

[9] See *id.,* 78 FR at 14966.

[10] We refer to the Fangda Group as a single entity pursuant to 19 CFR 351.401(f)(1). *See Small Diameter Graphite Electrodes From the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Affirmative Preliminary Determination of Critical Circumstances, in Part,* 73 FR 49408, 49411–12 (August 21, 2008) (where we collapsed the following individual members of the Fangda Group: Beijing Fangda Carbon Tech Co., Ltd., Chengdu Rongguang Carbon Co., Ltd., Fangda Carbon New Material Co., Ltd., Fushun Carbon Co., Ltd., and Hefei Carbon Co., Ltd.), unchanged in *Final Determination of Sales at Less Than Fair Value and Affirmative Determination of Critical Circumstances: Small Diameter Graphite Electrodes from the People's Republic of China,* 74 FR 2049 (January 14, 2009).

[11] *See* accompanying Issues and Decision Memorandum at Comment 6.

dumping margins in these final results are zero.[12]

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of these final results of review for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date as provided by section 751(a)(2)(C) of the Act: (1) No cash deposit will be required for subject merchandise exported by Fushun Jinly, Muzi Carbon, and the five companies comprising the Fangda Group because they received a rate of 0.00 percent in the final results of this administrative review; (2) for previously investigated or reviewed PRC and non-PRC exporters not listed above that received a separate rate in a prior segment of this proceeding, the cash deposit rate will continue to be the existing exporter-specific rate; (3) for all PRC exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be that for the PRC-wide entity; and (4) for all non-PRC exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to the PRC exporter that supplied that non-PRC exporter. These deposit requirements shall remain in effect until further notice.

Notifications

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a sanctionable violation.

[12] *See Antidumping Proceeding: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Antidumping Duty Proceedings; Final Modification,* 77 FR 8103 (February 14, 2012).

Disclosure

We intend to disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding, in accordance with 19 CFR 351.224(b).

These final results of review are issued and published in accordance with sections 751(a)(1) and 777(i) of the Act.

Dated: September 4, 2013.

Paul Piquado,

Assistant Secretary for Import Administration.

Appendix 1

List of Topics Discussed in the Issues and Decision Memorandum

Comment 1: U.S. Sales Attributable to Circumvention Determination
Comment 2: Tolling Data
Comment 3: Reconciliation of Factors of Production
Comment 4: Differential Pricing and Targeted Dumping Analyses
Comment 5: Rate for Non-Selected Companies
Comment 6: Surrogate Financial Ratios

Appendix 2

Firms for which we are not rescinding the review even though we received timely withdrawal requests because these companies are part of the PRC entity as they did not have a separate rate from a prior segment.

1. 5-Continent Imp. & Exp. Co., Ltd.
2. Acclcarbon Co., Ltd.
3. Allied Carbon (China) Co., Limited
4. Anssen Metallurgy Group Co., Ltd.
5. AMGL
6. Apex Maritime (Dalian) Co., Ltd.
7. Asahi Fine Carbon (Dalian) Co., Ltd.
8. Beijing Xinchengze Inc.
9. Beijing Xincheng Sci-Tech. Development Inc.
10. Chang Cheng Chang Electrode Co., Ltd.
11. Chengdelh Carbonaceous Elements Factory
12. Chengdu Jia Tang Corp.
13. China Industrial Mineral & Metals Group
14. China Shaanxi Richbond Imp. & Exp. Industrial Corp. Ltd.
15. China Xingyong Carbon Co., Ltd.
16. CIMM Group Co., Ltd.
17. Dalian Carbon & Graphite Corporation
18. Dalian Hongrui Carbon Co., Ltd.
19. Dalian Honest International Trade Co., Ltd.
20. Dalian Horton International Trading Co., Ltd.
21. Dalian LST Metallurgy Co., Ltd.
22. Dalian Shuangji Co., Ltd.
23. Datong Carbon
24. Datong Carbon Plant
25. Datong Xincheng Carbon Co., Ltd.
26. De Well Container Shipping Corp.
27. Dewell Group
28. Dignity Success Investment Trading Co., Ltd.
29. Double Dragon Metals and Mineral Tools Co., Ltd.
30. Fangda Lanzhou Carbon Joint Stock Company Co. Ltd.
31. Foset Co., Ltd.
32. Fushun Orient Carbon Co., Ltd.
33. Guangdong Highsun Yongye (Group) Co., Ltd.
34. Haimen Shuguang Carbon Industry Co., Ltd.
35. Handan Hanbo Material Co., Ltd.
36. Hebei Long Great Wall Electrode Co., Ltd.
37. Heilongjiang Xinyuan Metacarbon Company, Ltd.
38. Henan Sanli Carbon Products Co., Ltd.
39. Hopes (Beijing) International Co., Ltd.
40. Hunan Mec Machinery and Electronics Imp. & Exp. Corp.
41. Hunan Yinguang Carbon Factory Co., Ltd.
42. Inner Mongolia QingShan Special Graphite and Carbon Co., Ltd.
43. Inner Mongolia Xinghe County Hongyuan Electrical Carbon Factory
44. Jiang Long Carbon
45. Jiangsu Yafei Carbon Co., Ltd.
46. Jichun International Trade Co., Ltd. of Jilin Province
47. Jiexiu Juyuan Carbon Co., Ltd.
48. Jiexiu Ju-Yuan & Coaly Co., Ltd.
49. Jilin Carbon Graphite Material Co., Ltd.
50. Jilin Carbon Import and Export Company
51. Jilin Songjiang Carbon Co Ltd.
52. Jinneng Group Co., Ltd.
53. Jinyu Thermo-Electric Material Co., Ltd.
54. Kaifeng Carbon Company Ltd.
55. KASY Logistics (Tianjin) Co., Ltd.
56. Kimwan New Carbon Technology and Development Co., Ltd.
57. Kingstone Industrial Group Ltd.
58. L & T Group Co., Ltd.
59. Laishui Long Great Wall Electrode Co. Ltd.
60. Lanzhou Carbon Co., Ltd.
61. Lanzhou Carbon Import & Export Corp.
62. Lanzhou Hailong Technology
63. Lanzhou Ruixin Industrial Material Co., Ltd.
64. LH Carbon Factory of Chengde
65. Lianxing Carbon Qinghai Co., Ltd.
66. Lianxing Carbon Science Institute
67. Lianxing Carbon (Shandong) Co., Ltd.
68. Lianyungang Jinli Carbon Co., Ltd.
69. Liaoyang Carbon Co. Ltd.
70. Linyi County Lubei Carbon Co., Ltd.
71. Maoming Yongye (Group) Co., Ltd.
72. MBI Beijing International Trade Co., Ltd.
73. Nantong Yangtze Carbon Corp. Ltd.
74. Orient (Dalian) Carbon Resources Developing Co., Ltd.
75. Orient Star Transport International, Ltd.
76. Peixian Longxiang Foreign Trade Co. Ltd.
77. Qingdao Grand Graphite Products Co., Ltd.
78. Quingdao Haosheng Metals & Minerals Imp. & Exp. Co., Ltd.
79. Qingdao Liyikun Carbon Development Co., Ltd.
80. Qingdao Likun Graphite Co., Ltd.
81. Qingdao Ruizhen Carbon Co., Ltd.
82. Ray Group Ltd.
83. Rex International Forwarding Co., Ltd.
84. Rt Carbon Co., Ltd.
85. Ruitong Carbon Co., Ltd.
86. Shandong Basan Carbon Plant
87. Shandong Zibo Continent Carbon Factory
88. Shanghai Carbon International Trade Co., Ltd.
89. Shanghai P.W. International Ltd.
90. Shanghai Shen-Tech Graphite Material

Co., Ltd.
91. Shanghai Topstate International Trading Co., Ltd.
92. Shanxi Datong Energy Development Co., Ltd.
93. Shanxi Foset Carbon Co. Ltd.
94. Shanxi Jiexiu Import and Export Co., Ltd.
95. Shanxi Jinneng Group Co., Ltd.
96. Shanxi Yunheng Graphite Electrode Co., Ltd.
97. Shijaizhuang Carbon Co., Ltd.
98. Sichuan 5-Continent Imp. & Exp. Co., Ltd.
99. Sichuan GMT International Inc.
100. Sinicway International Logistics Ltd.
101. Sinosteel Anhui Co., Ltd.
102. Sinosteel Jilin Carbon Imp. & Exp. Co., Ltd.
103. Sinosteel Sichuan Co., Ltd.
104. SMMC Group Co., Ltd.
105. Sure Mega (Hong Kong) Ltd.
106. Tangshan Kimwan Special Carbon & Graphite Co., Ltd.
107. Tengchong Carbon Co., Ltd.
108. Tianjin (Teda) Iron & Steel Trade Co., Ltd.
109. Tianjin Kimwan Carbon Technology and Development Co., Ltd.
110. Tianjin Yue Yang Industrial & Trading Co., Ltd.
111. Tielong (Chengdu) Carbon Co., Ltd.
112. United Carbon Ltd.
113. United Trade Resources, Inc.
114. Weifang Lianxing Carbon Co., Ltd.
115. World Trade Metals & Minerals Co., Ltd.
116. XC Carbon Group
117. Xinyuan Carbon Co., Ltd.
118. Xuanhua Hongli Refractory and Mineral Company
119. Xuchang Minmetals & Industry Co., Ltd.
120. Xuzhou Carbon Co., Ltd.
121. Xuzhou Electrode Factory
122. Yangzhou Qionghua Carbon Trading Ltd.
123. Yixing Huaxin Imp & Exp Co. Ltd.
124. Youth Industry Co., Ltd.
125. Zhengzhou Jinyu Thermo-Electric Material Co., Ltd.
126. Zibo Continent Carbon Factory
127. Zibo DuoCheng Trading Co., Ltd.
128. Zibo Lianxing Carbon Co., Ltd.
129. Zibo Wuzhou Tanshun Carbon Co., Ltd.

Companies that are now part of the PRC entity because they did not demonstrate in this review that they are entitled to a separate rate.

1. Dechang Shida Carbon Co., Ltd.
2. Shida Carbon Group
3. Sichuan Shida Trading Co., Ltd.
4. Sichuan Guanghan Shida Carbon Co., Ltd.[13]

[FR Doc. 2013–22028 Filed 9–10–13; 8:45 am]

BILLING CODE 3510–DS–P

[13] This company is the same entity as Guanghan Shida Carbon Co., Ltd., for which this administrative review was initiated. *See Small Diameter Graphite Electrodes from the People's Republic of China: Final Results of the Antidumping Duty Administrative Review,* 77 FR 40854, 40856 (July 11, 2012).

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

National Sea Grant Advisory Board

AGENCY: National Oceanic and Atmospheric Administration, Commerce.

ACTION: Notice of solicitation for nominations for potential National Sea Grant Advisory Board members and notice of public meeting.

SUMMARY: This notice responds to Section 209 of the Sea Grant Program Improvement Act of 1976 (Pub. L. 94–461, 33 U.S.C. 1128), which requires the Secretary of Commerce to solicit nominations at least once a year for membership on the National Sea Grant Advisory Board, a Federal Advisory Committee that provides advice on the implementation of the National Sea Grant College Program. To apply for membership to the Advisory Board applicants should submit a current resume as indicated in the **ADDRESSES** section. A cover letter highlighting specific areas of expertise relevant to the purpose of the Board is helpful, but not required. NOAA is an equal opportunity employer.

This notice also sets forth the schedule and proposed agenda of a forthcoming meeting of the National Sea Grant Advisory Board. Board members will discuss and provide advice on the National Sea Grant College Program in the areas of program evaluation, strategic planning, education and extension, science and technology programs, and other matters as described in the agenda found on the National Sea Grant College Program Web site at *http://seagrant.noaa.gov/WhoWeAre/Leadership/NationalSeaGrantAdvisoryBoard/AdvisoryBoardUpcomingMeetings.aspx.*

DATES: Solicitation of nominations is open ended. Resumes may be sent to the address specified at any time. The announced meeting is scheduled for Monday, September 23, 2013 from 10:00 a.m. to 5:00 p.m. EST and Tuesday, September 24, 2013, from 9:00 a.m. to 4:00 p.m. EST.

Individuals Selected For Federal Advisory Committee Membership: Upon selection and agreement to serve on the National Sea Grant Advisory Board, you become a Special Government Employee (SGE) of the United States Government. 18 U.S.C. 202(a) an SGE(s) is an officer or employee of an agency who is retained, designated, appointed, or employed to perform temporary duties, with or without compensation, not to exceed 130 days during any period of 365 consecutive days, either on a fulltime or intermittent basis. Please be aware that after the selection process is complete, applicants selected to serve on the Board must complete the following actions before they can be appointed as a Board member:

(a) Security Clearance (on-line Background Security Check process and fingerprinting conducted through NOAA Workforce Management); and (b) Confidential Financial Disclosure Report—As an SGE, you are required to file a Confidential Financial Disclosure Report to avoid involvement in a real or apparent conflict of interest. You may find the Confidential Financial Disclosure Report at the following Web site. *http://www.oge.gov/Forms-Library/OGE-Form-450-Confidential-Financial-Disclosure-Report/.*

ADDRESSES: Nominations should be sent to Ms. Elizabeth Ban, Designated Federal Officer, National Sea Grant College Program, National Oceanic and Atmospheric Administration, 1315 East-West Highway, Room 11853, Silver Spring, Maryland 20910, (301) 734–1082.

The September meeting will be held at Stone Laboratory, 878 Bayview Avenue, Put-in-Bay, Ohio 43456.

Status: The meeting will be open to public participation with a 15-minute public comment period on Tuesday, September 24 at 1:30 p.m. (check agenda on Web site to confirm time).

The Board expects that public statements presented at its meetings will not be repetitive of previously submitted verbal or written statements. In general, each individual or group making a verbal presentation will be limited to a total time of three (3) minutes. Written comments should be received by the Designated Federal Officer by Monday, September 16, 2013 to provide sufficient time for the Board review. Written comments received after Monday, September 16, 2013 will be distributed to the Board, but may not be reviewed prior to the meeting date. Seats will be available on a first-come, first-serve basis.

FOR FURTHER INFORMATION CONTACT: Ms. Elizabeth Ban, Designated Federal Officer, National Sea Grant College Program, National Oceanic and Atmospheric Administration, 1315 East-West Highway, Room 11853; Silver Spring, Maryland 20910, (301) 734–1082.

SUPPLEMENTARY INFORMATION: Established by Section 209 of the Act and as amended the National Sea Grant College Program Amendments Act of

2008 (Pub. L. 110–394), the duties of the Board are as follows:

(1) In general. The Board shall advise the Secretary and the Director concerning:

(A) Strategies for utilizing the sea grant college program to address the Nation's highest priorities regarding the understanding, assessment, development, management, utilization, and conservation of ocean, coastal, and Great Lakes resources;

(B) The designation of sea grant colleges and sea grant institutes; and

(C) Such other matters as the Secretary refers to the Board for review and advice.

(2) Biennial Report. The Board shall report to the Congress every two years on the state of the national sea grant college program. The Board shall indicate in each such report the progress made toward meeting the priorities identified in the strategic plan in effect under section 204(c). The Secretary shall make available to the Board such information, personnel, and administrative services and assistance as it may reasonably require to carry out its duties under this title. The Secretary shall make available to the Board such information, personnel, and administrative services and assistance as it may reasonably require to carry out its duties.

The Board shall consist of 15 voting members who shall be appointed by the Secretary. The Director and a director of a Sea Grant program who is elected by the various directors of Sea Grant programs shall serve as nonvoting members of the Board. Not less than 8 of the voting members of the Board shall be individuals who, by reason of knowledge, experience, or training, are especially qualified in one or more of the disciplines and fields included in marine science. The other voting members shall be individuals who, by reason of knowledge, experience, or training, are especially qualified in, or representative of, education, marine affairs and resource management, coastal management, extension services, State government, industry, economics, planning, or any other activity which is appropriate to, and important for, any effort to enhance the understanding, assessment, development, management, utilization, or conservation of ocean, coastal, and Great Lakes resources. No individual is eligible to be a voting member of the Board if the individual is (A) the director of a Sea Grant college or Sea Grant institute; (B) an applicant for, or beneficiary (as determined by the Secretary) of, any grant or contract under section 205 [33 USCS § 1124]; or (C) a full-time officer or employee of the United States.

The Director of the National Sea Grant College Program and one Director of a Sea Grant Program also serve as non-voting members. Board members are appointed for a 4-year term.

Special Accomodations: These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Elizabeth Ban, Designated Federal Office at 301–734–1082 by Monday, September 16, 2013.

Jason Donaldson,

Chief Financial Officer/Chief Administrative Officer, Office of Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration.

[FR Doc. 2013–22005 Filed 9–10–13; 8:45 am]

BILLING CODE 3510–KA–P

DEPARTMENT OF COMMERCE

National Telecommunications and Information Administration

ConnectED Workshop

AGENCY: National Telecommunications and Information Administration, U.S. Department of Commerce.

ACTION: Notice of Open Meeting.

SUMMARY: The National Telecommunications and Information Administration (NTIA) will convene a meeting of stakeholders from the education, technology, and government sectors to share ideas, discuss policies, and consider promising strategies for achieving the President's goal of connecting virtually all K–12 students in the United States to next-generation broadband. This Notice announces that the ConnectED Workshop will be held on October 7, 2013.

DATES: The meeting will be held on October 7, 2013, from 12:30 p.m. to 5:00 p.m., Eastern Daylight Time.

ADDRESSES: The meeting will be held in the Gallery (located on the lobby level) of the American Institute of Architects headquarters, located at 1735 New York Avenue NW., Washington, DC 20006.

FOR FURTHER INFORMATION CONTACT: Joelle Tessler, Manager of Stakeholder Relations and Outreach, National Telecommunications and Information Administration, U.S. Department of Commerce, Room 4897, 1401 Constitution Avenue NW., Washington, DC 20230; telephone: (202) 482–4829; email: *jtessler@ntia.doc.gov.* Please direct media inquiries to NTIA's Office of Public Affairs, (202) 482–7002.

SUPPLEMENTARY INFORMATION: President Obama recently set an ambitious goal to connect practically all American students to ultra-fast broadband within five years. The President's ConnectED initiative would bring next-generation Internet speeds to K–12 schools across the nation. *See* ConnectED: President Obama's Plan for Connecting All Schools to the Digital Age, *available at http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf.* The Federal Communications Commission (FCC) also recently launched a proceeding to overhaul and update the federal E-Rate program, which funds Internet access in schools and libraries. *See In the Matter of Modernizing the E-rate Program for Schools and Libraries,* WC Docket No. 13–184, Notice of Proposed Rule Making (rel. July 23, 2013). To help inform these efforts, NTIA will convene stakeholders from the education, technology, and government sectors to share ideas, discuss policies and consider the most promising strategies for equipping K–12 schools for digital learning.

The ConnectED Workshop will discuss the growing bandwidth needs of K–12 schools as more schools use mobile devices to enrich the learning experience; as teachers increasingly integrate Web video and other digital content into the curriculum; and as classroom management software tools move everything from homework assignments to testing into the cloud. The workshop will explore possible strategies to connect virtually all of our students to next-generation broadband in a timely, cost-effective way. It will also share promising practices, from NTIA's Broadband Technology Opportunities Program (BTOP) and State Broadband Initiative (SBI); the U.S. Department of Agriculture's Rural Utilities Service's Broadband Initiatives Program (BIP), Broadband Loan Program, Community Connect Program, and Distance Learning and Telemedicine Program; and the U.S. Department of Education.

The meeting will be open to the public and press. Due to the limited number of seats, attendance at the workshop will be on a first-come, first-served basis. Attendees may pre-register for the Workshop, but pre-registration does not guarantee the availability of seating. Information on how to pre-register for the meeting will be available on NTIA's Web site (*www.ntia.doc.gov*). NTIA will ask registrants to provide their first and last names and email addresses for both registration purposes and to receive any updates on the ConnectED Workshop.

The public meeting is physically accessible to people with disabilities. Individuals requiring accommodations, such as language interpretation or other ancillary aids, are asked to notify Jean Rice, at (202) 482–2614 or *jrice@ntia.doc.gov*, at least five (5) business days before the meeting.

The meeting will also be webcast. A webcast page will be published on NTIA's Web site (*www.ntia.doc.gov*) several days in advance of the meeting containing webcast instructions and other information. If you have technical questions regarding the webcast, please contact Charles Franz at *cfranz@ntia.doc.gov.*

Meeting updates and relevant documents will be also available on NTIA's Web site at *http://www.ntia.doc.gov.*

Dated: September 6, 2013.

Kathy Smith,

Chief Counsel, National Telecommunications and Information Administration.

[FR Doc. 2013–22087 Filed 9–10–13; 8:45 am]

BILLING CODE 3510–60–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID DoD–2013–OS–0191]

Proposed Collection; Comment Request

AGENCY: Defense Logistics Agency (DLA), DoD.

ACTION: Notice.

SUMMARY: In compliance with Section 3506(c)(2)(A) of the *Paperwork Reduction Act of 1995,* the Defense Logistics Agency (DLA) announces a proposed public information collection and seeks public comment on the provisions thereof. Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed information collection; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the information collection on respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Consideration will be given to all comments received by November 12, 2013.

ADDRESSES: You may submit comments, identified by docket number and title, by any of the following methods:

- Federal eRulemaking Portal: *http://www.regulations.gov*. Follow the instructions for submitting comments.
- Mail: Federal Docket Management System Office, 4800 Mark Center Drive, East Tower, Suite 02G09, Alexandria, VA 22350–3100.

Instructions: All submissions received must include the agency name, docket number and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the Internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: To request more information on this proposed information collection or to obtain a copy of the proposal and associated collection instruments, please write to the Defense Logistics Agency, Security and Emergency Services Suite 3533, ATTN: Mr. Gregory Govan, Fort Belvoir, VA 22060 or call Security and Emergency Services at 703–767–5400.

SUPPLEMENTARY INFORMATION:

Title; Associated Form; and OMB Number: Physical Access Control System (Diamond II) for DLA Headquarters. OMB 0704–TBD.

Needs and Uses: The information collection requirement ensures that only those Department of Defense employees assigned or need unescorted access to the Defense Logistics Agency (DLA), (Military, Civilians, Contractors, and other DoD affiliates) are granted unescorted access to the DLA Headquarters McNamara Complex.

Affected Public: Department of Defense employees assigned to DLA and contractors supporting DLA.

Annual Burden Hours: 3750.

Number of Respondents: 15000.

Responses per Respondent: 1.

Annual Responses: 15000.

Average Burden per Response: 15 minutes.

Frequency: On occasion.

Security Professionals (security administrators, security assistants) process the information ensuring personnel requesting and/or requiring unescorted access into the DLA Headquarters McNamara Complex (DLA HQC) are granted the proper access as required. Basic identifying information is collected from the individuals' which includes some biographical data. Additional information may also be collected (such as contact information, vehicle information, organization affiliation, etc.) but may not be required to grant an individual unescorted access to the DLA HQC.

Dated: September 6, 2013.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2013–22074 Filed 9–10–13; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

Renewal of Department of Defense Federal Advisory Committees

AGENCY: DoD.

ACTION: Renewal of Defense Policy Board.

SUMMARY: The Department of Defense gives notice that it is renewing the charter for the Defense Policy Board. This notice describes the Board's purpose, reporting procedures, and how the public or interested organizations may submit written statements to the Board membership about the Board's mission and functions.

FOR FURTHER INFORMATION CONTACT: Jim Freeman, Advisory Committee Management Officer for the Department of Defense, 703–692–5952.

SUPPLEMENTARY INFORMATION: This committee is being renewed under the provisions of 10 U.S.C. 2166(e), the Federal Advisory Committee Act of 1972 (5 U.S.C. Appendix), the Government in the Sunshine Act of 1976 (5 U.S.C. 552b), and 41 CFR 102–3.50(a).

The Board, through the Under Secretary of Defense for Policy (USD(P)), provides the Secretary of Defense and the Deputy Secretary of Defense, independent, informed advice and opinions concerning matters of defense policy and in response to specific tasks from the Secretary of Defense, the Deputy Secretary of Defense or the USD(P). The Board shall focus on: (a) Issues central to strategic Department of Defense (DoD) planning; (b) policy implications of U.S. force structure and force modernization on DoD's ability to execute U.S. defense strategy; (c) U.S. regional defense policies; and (d) any other topics raised by the Secretary of Defense, the Deputy Secretary of Defense, or the USD(P).

The Board shall report to the Secretary of Defense through the USD(P). The USD(P) may act upon the Board's advice and recommendations. The Board shall be comprised of no

more than 24 members who have distinguished backgrounds in defense and national security affairs. Board members appointed by the Secretary of Defense or the Deputy Secretary of Defense, who are not full-time or permanent part-time federal employees, shall be appointed as experts and consultants under the authority of 5 U.S.C. 3109 to serve as special government employee (SGE) members. Board members shall serve a term of service of one-to-four years on the Board, subject to annual renewals. No member may serve more than two consecutive terms of service without Secretary or Deputy Secretary of Defense approval.

The Secretary of Defense shall select the Board's Chair from the membership at large. In addition, the Secretary of Defense appoints the chairs of the Defense Business Board and the Defense Science Board as non-voting ex-officio members of the Board, whose appointments shall not count toward the Board's total membership. With the exception of travel and per diem for official travel, all Board members shall serve without compensation.

The USD(P), pursuant to DoD policies and procedures, and as deemed necessary, may appoint non-voting subject matter experts (SMEs) to assist the Board or its subcommittees on an ad hoc basis. These non-voting SMEs are not members of the Board or its subcommittees and will not engage or participate in any deliberations by the Board or its subcommittees unless the Secretary of Defense or the Deputy Secretary of Defense specifically invites them to participate in the deliberations according to DoD policies and procedures. These non-voting SMEs, if not full-time or permanent part-time Government employees, will be appointed as experts and consultants under the authority of 5 U.S.C. 3109 to serve on an intermittent basis to address specific issues under consideration by the Board.

The Department, when necessary and consistent with the Board's mission and DoD policies and procedures, may establish subcommittees, task groups, or working groups to support the Board. Establishment of subcommittees will be based upon a written determination, to include terms of reference, by the Secretary of Defense, the Deputy Secretary of Defense, or the USD(P). If the Department determines that the establishment of subcommittees is warranted, the Board's charter must be amended prior to such establishment.

The Board shall meet at the call of the Board's DFO, in consultation with the Board's chairperson and the USD(P). The estimated number of Board meetings is four per year. In addition, the DFO is required to be in attendance at all Board and subcommittee meetings for the entire duration of each and every meeting; however, in the absence of the DFO, the Alternate DFO shall attend the entire duration of the Board or subcommittee meeting.

Pursuant to 41 CFR 102–3.105(j) and 102–3.140, the public or interested organizations may submit written statements to the Board membership about the Board's mission and functions. Written statements may be submitted at any time or in response to the stated agenda of planned meeting of the Board.

All written statements shall be submitted to the DFO, and this individual will ensure that the written statements are provided to the membership for their consideration. Contact information for the Board's DFO can be obtained from the GSA's FACA Database—*http://facasms.fido.gov/*.

The DFO, pursuant to 41 CFR 102–3.150, will announce planned meetings of the Board. The DFO, at that time, may provide additional guidance on the submission of written statements that are in response to the stated agenda for the planned meeting in question.

Dated: September 5, 2013.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2013–22021 Filed 9–10–13; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Department of the Air Force

U.S. Air Force Scientific Advisory Board Notice of Meeting

AGENCY: Department of the Air Force, U.S. Air Force Scientific Advisory Board.

SUMMARY: Under the provisions of the Federal Advisory Committee Act of 1972 (5 U.S.C., Appendix, as amended), the Government in the Sunshine Act of 1976 (5 U.S.C. 552b, as amended), and 41 CFR 102–3.150, the Department of Defense announces that the United States Air Force Scientific Advisory Board (SAB) meeting will take place 23–24 Sep 2013 at the Secretary of the Air Force Technical and Analytical Support Conference Center, 1550 Crystal Drive, Arlington, VA 22202. The meeting will be from 1:00 p.m.–5:00 p.m. Monday, 23 September 2013 and 7:45 a.m.–4:45 p.m. on Tuesday, 24 September 2013. The sessions from 7:45 a.m.–09:45 a.m., Tuesday, 24 September, will be open to the public.

The purpose of this Air Force Scientific Advisory Board quarterly meeting is to receive briefings from Air Force leadership and plan for the FY14 SAB studies. In accordance with 5 U.S.C. 552b, as amended, and 41 CFR 102–3.155, some sessions of the United States Air Force Scientific Advisory Board meeting will be closed to the public because they will discuss information and matters covered by section 5 U.S.C. 552b(c)(1) and (2).

Any member of the public wishing to attend this meeting or provide input to the United States Air Force Scientific Advisory Board must contact the Designated Federal Officer at the address detailed below at least five days prior to the meeting date. Submit a written statement in accordance with 41 CFR 102–3.140(c) and section 10(a)(3) of the Federal Advisory Committee Act and the procedures described in this paragraph. Statements being submitted in response to the agenda mentioned in this notice must be received by the Designated Federal Officer at the address listed below at least five calendar days prior to the meeting which is the subject of this notice. Written statements received after this date may not be provided to or considered by the United States Air Force Scientific Advisory Board until its next meeting. The Designated Federal Officer will review all timely submissions with the United States Air Force Scientific Advisory Board Chairperson and ensure they are provided to members of the United States Air Force Scientific Advisory Board before the meeting that is the subject of this notice.

FOR FURTHER INFORMATION CONTACT: The United States Air Force Scientific Advisory Board Executive Director and Designated Federal Officer, Lt. Col. Derek Lincoln, 240–612–5502, United States Air Force Scientific Advisory Board, 1500 West Perimeter Road, Ste. #3300, Joint Base Andrews, MD 20762, *Derek.Lincoln@pentagon.af.mil.*

Henry Williams Jr.,

GS–12 DAF, Acting Air Force Federal Register Liaison Officer.

[FR Doc. 2013–22136 Filed 9–10–13; 8:45 am]

BILLING CODE 5001–05–P

DEPARTMENT OF DEFENSE

Department of the Army

Notice of Intent To Grant an Exclusive, Partially Exclusive or Non-Exclusive License of the United States Patent Application No. 13/543,217 Filed July 06, 2012 Entitled ''Tie-Down and Jack Fitting Assembly for Helicopter''

AGENCY: Department of the Army, DoD.

ACTION: Notice of intent.

SUMMARY: In accordance with 35 U.S.C. 209 and 37 CFR 404.7 (a)(l)(i), announcement is made of a prospective exclusive, partially exclusive, or non-exclusive license of the following U.S. Patent Application 13/543,217 Filed July 06, 2012 to Envoy Flight Systems, Incorporated with its principal place of business at 201 Ruther Drive, Suite 3, Newark, DE 19711.

DATES: Written objections must be filed not later than 15 days following publication of this announcement.

ADDRESSES: Commander, U.S. Army Research Development and Engineering Command, Aviation and Missile Research Development, and Engineering Center, ATTN: RDMR–CST (Ms. Cindy Wallace), Bldg 5400, Redstone Arsenal, AL 35898–5000.

FOR FURTHER INFORMATION CONTACT: Ms. Cindy Wallace, (256) 313–0895, FAX (256) 955–6529 email: *cindy.wallace@us.army.mil.*

SUPPLEMENTARY INFORMATION: The patent application relates to the aviation platforms and helicopters. More specifically, the present invention claims to assist the users to jack and weigh the rotorcraft prior to flight operations. The present invention also provides a primary tool in securing the rotorcraft for safe transit.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2013–22009 Filed 9–10–13; 8:45 am]

BILLING CODE 3710–08–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Intent To Grant Partially Exclusive Patent License; Silvanus, LLC

AGENCY: Department of the Navy, DoD.

ACTION: Notice.

SUMMARY: The Department of the Navy hereby gives notice of its intent to grant to Silvanus, LLC. a revocable, nonassignable, partially exclusive license to practice in the United States, the Government-owned invention described in U.S. Patent 8,408,460 (Navy Case 100000): issued April 2, 2013, entitled ''Auto Adjusting Ranging Device''.

DATES: Anyone wishing to object to the grant of this license must file written objections along with supporting evidence, if any, not later than September 26, 2013.

ADDRESSES: Written objections are to be filed with Naval Surface Warfare Center, Crane Div, Code OOL, Bldg 2, 300 Highway 361, Crane, IN 47522–5001.

FOR FURTHER INFORMATION CONTACT: Mr. Christopher Monsey, Naval Surface Warfare Center, Crane Div, Code OOL, Bldg 2, 300 Highway 361, Crane, IN 47522–5001, telephone 812–854–4100.

Authority: 35 U.S.C. 207, 37 CFR part 404.

Dated: September 3, 2013.

N.A. Hagerty-Ford,

Commander, Office of the Judge Advocate General, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2013–22139 Filed 9–10–13; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Availability of Government-Owned Invention; Available for Licensing

AGENCY: Department of the Navy, DoD.

ACTION: Notice.

SUMMARY: The invention listed below is assigned to the United States Government, as represented by the Secretary of the Navy and is available for licensing by the Department of the Navy. Patent No. 8,408,460: Auto Adjusting Ranging Device.

ADDRESSES: Requests for copies of the patent cited should be directed to Office of Counsel, Naval Surface Warfare Center, Crane Div, Code OOL, Bldg 2, 300 Highway 361, Crane, IN 47522–5001.

FOR FURTHER INFORMATION CONTACT: Mr. Christopher Monsey, Naval Surface Warfare Center, Crane Div, Code OOL, Bldg 2, 300 Highway 361, Crane, IN 47522–5001, telephone 812–854–4100.

(Authority: 35 U.S.C. 207, 37 CFR Part 404)

N.A. Hagerty-Ford,

Commander, Office of the Judge Advocate General, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2013–22140 Filed 9–10–13; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Meeting of the Board of Visitors of Marine Corps University

AGENCY: Department of the Navy, DoD.

ACTION: Notice of open meeting.

SUMMARY: The Board of Visitors of the Marine Corps University will meet to review, develop and provide recommendations on all aspects of the academic and administrative policies of the University; examine all aspects of professional military education operations; and provide such oversight and advice, as is necessary, to facilitate high educational standards and cost effective operations. The Board will be focusing primarily on the internal procedures of Marine Corps University. All sessions of the meeting will be open to the public.

DATES: The meeting will be held on Friday, October 4, 2013 from 8:30 a.m. to 3:30 p.m.

ADDRESSES: The meeting will be held at the Marine Corps University in Quantico, Virginia. The address is: 2040 Broadway Street, Gray Research Center, Quantico, Virginia 22134–5068.

FOR FURTHER INFORMATION CONTACT: Dr. Kimberly Florich, Faculty Development and Outreach Coordinator, Marine Corps University Board of Visitors, 2076 South Street, Quantico, Virginia 22134, telephone number 703–432–4682.

Dated: September 4, 2013.

N.A. Hagerty-Ford,

Commander, Office of the Judge Advocate General, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2013–22138 Filed 9–10–13; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF EDUCATION

[Docket No. ED–2013–ICCD–0081]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Annual Performance Reporting (APR) System for NIDRR Grantees (RERCs, RRTCS, FIPs, ARRTs, DBTAC, DRRPs)

AGENCY: Office of Special Education and Rehabilitative Services (OSERS), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing an extension of an existing information collection.

DATES: Interested persons are invited to submit comments on or before October 11, 2013.

ADDRESSES: Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting Docket ID number ED–2013–ICCD–0081 or via postal mail, commercial delivery, or hand delivery. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Room 2E115, Washington, DC 20202–4537.

FOR FURTHER INFORMATION CONTACT: For questions related to collection activities or burden, please call Tomakie Washington, 202–401–1097 or electronically mail *ICDocketMgr@ed.gov*. Please do not send comments here.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Annual Performance Reporting (APR) System for NIDRR Grantees (RERCs, RRTCS, FIPs, ARRTs, DBTAC, DRRPs).

OMB Control Number: 1820–0675.

Type of Review: Extension without change of an existing collection of information.

Respondents/Affected Public: State, Local, or Tribal Governments.

Total Estimated Number of Annual Responses: 266.

Total Estimated Number of Annual Burden Hours: 13,832.

Abstract: The National Institute on Disability and Rehabilitation Research (NIDRR) of the Department of Education requests an extension of the Annual Performance Reporting (APR) System for NIDRR Grantees (RERCs, RRTCS, FIPs, ARRTs, DBTAC, DRRPs) 1820–0695. These APRs are collected by the Department to facilitate program planning and management; respond to Education Department General Administrative Regulations requirements; and reporting requirements under the Government Performance and Results Act of 1993 (Pub. L. 103–62) for these ten NIDRR grant programs: Rehabilitation Research Training Centers (RRTCs); Rehabilitation Engineering Research Centers (RERCs); Field Initiated Research Projects (FIPs); Advanced Rehabilitation Research Training Projects (ARRTs); Model Systems (including spinal cord injury, traumatic brain injury, and burn centers); Disability and Rehabilitation Research Projects (DRRPs); Knowledge Translation (KT) Projects; ADA National Network Centers (ADAs); Small Business Innovation Research Projects (SBIR) grantees (Phase 2 only) and Research Fellowships Program (RFP).

Dated: September 5, 2013.

Tomakie Washington,

Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management.

[FR Doc. 2013–22042 Filed 9–10–13; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

[Docket No. ED–2013–ICCD–0084]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Application for the Investing in Innovation (i3) Grants Program

AGENCY: Office of Innovation and Improvement (OII), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing an extension of an existing information collection.

DATES: Interested persons are invited to submit comments on or before October 11, 2013.

ADDRESSES: Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting Docket ID number ED–2013–ICCD–0084 or via postal mail, commercial delivery, or hand delivery. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Room 2E115, Washington, DC 20202–4537.

FOR FURTHER INFORMATION CONTACT: For questions related to collection activities or burden, please call Tomakie Washington, 202–401–1097 or electronically mail *ICDocketMgr@ed.gov.* Please do not send comments here.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Application for the Investing in Innovation (i3) Grants Program.

OMB Control Number: 1855–0021.

Type of Review: Extension without change of an existing collection of information.

Respondents/Affected Public: State, Local, or Tribal Governments.

Total Estimated Number of Annual Responses: 2,200.

Total Estimated Number of Annual Burden Hours: 117,000.

Abstract: The Investing in Innovation (i3) Fund was established under section 14007 of the American Recovery and Reinvestment Act of 2009 (ARRA). Since this is a competitive program, the Department needs to collect applications in order to determine which eligible applicants should receive a grant award. The Department will make three types of awards under this program: Scale-up Grants, Validation Grants, and Development Grants. These grants will provide funding to support local educational agencies (LEAs), and nonprofit organizations in partnership with one or more LEAs or a consortium of schools to apply for funding to expand and develop innovate practices that can serve as models of best practices; allow eligible entities to work in partnership with the private sector and the philanthropic community; and identify and document best practices that can be shared and taken to scale based on demonstrated success.

Dated: September 5, 2013.

Tomakie Washington,

Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management.

[FR Doc. 2013–22043 Filed 9–10–13; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Applications for Fiscal Year 2014 Awards; Impact Aid Section 8002 Grant Program

AGENCY: Office of Elementary and Secondary Education, Department of Education.

ACTION: Notice extending the application deadline for the Impact Aid fiscal year 2014 Section 8002 Grant Program. Catalog of Federal Domestic Assistance (CFDA) Number: 84.041A.

SUMMARY: The Secretary extends the deadline date for the submission of applications for Impact Aid fiscal year 2014 section 8002 grants to October 11, 2013. Impact Aid regulations specify that the annual application deadline is January 31. Due to changes in the applications that were necessitated by legislative amendments in the fiscal year 2013 National Defense Appropriation Act, and the subsequent revision, production, and distribution of the application packages, the Secretary extends the deadline to October 11, 2013, for the potential applicants under section 8002 for Impact Aid assistance for fiscal year 2014.

FOR FURTHER INFORMATION CONTACT: Robin Robinson, U.S. Department of Education, 400 Maryland Avenue SW., Washington, DC 20202–6244. Telephone: (202) 260–3858 or by email: *Impact.Aid@ed.gov.*

If you use a TDD or a TTY, call the FRS, toll free, at 1–800–877–8339.

DATES: *Applications Available:* August 22, 2013.

Deadline for Transmittal of Applications: October 11, 2013.

Deadline for Intergovernmental Review: December 10, 2013.

The Secretary will also accept and approve for payment any otherwise approvable application that is received on or before the 60th calendar day after October 11, 2013, which is December 10, 2013, or the 60th calendar day after the Secretary provides written notice via email to a local educational agency that applied in the previous year but did not apply by October 11, 2013. However, any applicant submitting an application after October 11, 2013 will have its payment reduced by 10 percent of the amount it would have received had its application been filed by that date, consistent with 20 U.S.C. 7705 of the Impact Aid statute, as well as the program regulations at 34 CFR 222.6(b)(2).

Full Text of Announcement

I. Application and Submission Information

1. *Address to Request Application Package:* You can obtain an electronic application via the Internet at: *www.G5.gov.* For assistance, please contact the Impact Aid Program, U.S. Department of Education, 400 Maryland Avenue SW., Washington, DC 20202–6244. Telephone: (202)260–3858, Fax: 1–866–799–1272, or by email: *Impact.Aid@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

Individuals with disabilities can obtain a copy of the application package in an accessible format (e.g., braille, large print, audiotape, or compact disc) by contacting the person or team listed under *Accessible Format* in section IV of this notice.

2. *Content and Form of Application Submission:* Requirements concerning the content of an application, together with the forms you must submit, are in the application package for this competition.

3. *Submission Dates and Times:*

Applications Available: August 21, 2013.

Deadline for Transmittal of Applications: October 11, 2013.

Applications for grants under this competition must be submitted electronically using G5, the Department's grant management system, accessible through the Department's G5 site. For information (including dates and times) about how to submit your application electronically, please refer to section I.7. *Other Submission Requirements* of this notice.

The Secretary will also accept and approve for payment any otherwise approvable application that is received on or before the 60th calendar day after October 11, 2013, which is December 10, 2013, or the 60th day after the Secretary provides written notice via email to a local educational agency that applied in the previous year but did not apply by the deadline. However, any applicant submitting an application after October 11, 2013, will have its payment reduced by 10 percent of the amount it would have received had its application been filed by that date, consistent with 20 U.S.C. section 7705 of the Impact Aid statute, as well as the program regulations at 34 CFR 222.6(b)(2).

Due to the legislative changes in the 2013 National Defense Authorization Act (Pub. L. 112–239), the application deadline is extended past the normal amendment deadline of September 30, 2013. This is an unusual situation for fiscal year 2014 applications, but we will accept amendments to applications filed by October 11, 2013, if those amendments are submitted before December 10, 2013, or before the 60th day after the Secretary provides written notice via email to a local educational agency that applied in the previous year but did not apply by October 11, 2013.

Individuals with disabilities who need an accommodation or auxiliary aid in connection with the application process should contact the office listed under **FOR FURTHER INFORMATION CONTACT**. If the Department provides an accommodation or auxiliary aid to an individual with a disability in connection with the application process, the individual's application remains subject to all other

requirements and limitations in this notice.

Deadline for Intergovernmental Review: December 10, 2013.

5. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

6. *Data Universal Numbering System Number, Taxpayer Identification Number, and System for Award Management:* To do business with the Department of Education, you must—

a. Have a Data Universal Numbering System (DUNS) number and a Taxpayer Identification Number (TIN);

b. Register both your DUNS number and TIN with the System for Award Management (SAM) (formerly the Central Contractor Registry (CCR)), the Government's primary registrant database;

c. Provide your DUNS number and TIN on your application; and

d. Maintain an active SAM registration with current information while your application is under review by the Department and, if you are awarded a grant, during the project period.

You can obtain a DUNS number from Dun and Bradstreet. A DUNS number can be created within one-to-two business days.

If you are a corporate entity, agency, institution, or organization, you can obtain a TIN from the Internal Revenue Service. If you are an individual, you can obtain a TIN from the Internal Revenue Service or the Social Security Administration. If you need a new TIN, please allow 2–5 weeks for your TIN to become active.

The SAM registration process can take approximately seven business days, but may take upwards of several weeks, depending on the completeness and accuracy of the data entered into the SAM database by an entity. Thus, if you think you might want to apply for Federal financial assistance under a program administered by the Department, please allow sufficient time to obtain and register your DUNS number and TIN. We strongly recommend that you register early.

Note: Once your SAM registration is active, you will need to allow 24 to 48 hours for the information to be available in Grants.gov. and before you can submit an application through Grants.gov.

If you are currently registered with SAM, you may not need to make any changes. However, please make certain that the TIN associated with your DUNS number is correct. Also note that you will need to update your registration annually. This may take three or more business days.

Information about SAM is available at *www.SAM.gov.* To further assist you with obtaining and registering your DUNS number and TIN in SAM or updating your existing SAM account, we have prepared a SAM.gov Tip Sheet, which you can find at: *http://www2.ed.gov/fund/grant/apply/sam-faqs.html.*

In addition, if you are submitting your application via Grants.gov, you must (1) be designated by your organization as an Authorized Organization Representative (AOR); and (2) register yourself with Grants.gov as an AOR. Details on these steps are outlined at the following Grants.gov Web page: *www.grants.gov/applicants/get_registered.jsp.*

7. *Other Submission Requirements:* Applications for grants under the Impact Aid Section 8002 Grant Program—CFDA 84.041A, must be submitted electronically using the G5 system, accessible through the Department's G5 site at *www.G5.gov.* We will reject your application if you submit it in paper format.

While completing your electronic application, you will be entering data online that will be saved into a database. You may not email an electronic copy of a grant application to us.

Please note the following:

- You must complete the electronic submission of your grant application before midnight, Washington, DC time, on the application deadline date. G5 will not accept an application for this competition after 11:59:59 p.m., Washington, DC time, on the application deadline date. Therefore, we strongly recommend that you do not wait until the application deadline date to begin the application process.
- The hours of operation of the G5 Web site are 6:00 a.m. Monday until 7:00 p.m. Wednesday; and 6:00 a.m. Thursday until 8:00 p.m. Sunday, Washington, DC time. Please note that, because of maintenance, the system is unavailable between 8:00 p.m. on Sundays and 6:00 a.m. on Mondays, and between 7:00 p.m. on Wednesdays and 6:00 a.m. on Thursdays, Washington, DC time. Any modifications to these hours are posted on the G5 Web site.
- You must submit all documents electronically, including all information you typically provide on the following forms: the Application for Section 8002 and all necessary signature pages.
- You must upload any supporting documentation to your application as files in a PDF (Portable Document) read-only, non-modifiable format. Do not upload an interactive or fillable PDF file. If you upload a file type other than a read-only, non-modifiable PDF or submit a password protected file, we will not review that material.
- Prior to submitting your electronic application, you may wish to print a copy of it for your records.
- After you electronically submit your application, you will receive an automatic acknowledgment.
- By the application deadline date, you must fax or email a signed copy of the cover page and the assurances for the Section 8002 application to the Impact Aid Program, following these steps:

(1) Print a copy of the application from G5 for your records.

(2) The applicant's Authorizing Representative must sign and date the cover page and assurances page. These forms must be submitted by the application deadline in order to be considered for funding under this program.

(3) Fax or email the signed cover page and assurances page for the Section 8002 application to the Impact Aid Program at 1–866–799–1272 or by email to *Impact.Aid@ed.gov.* These forms must be submitted before midnight, Washington, DC time, of the application deadline in order to be considered for funding under this program.

- We may request that you provide us original signatures on other forms at a later date.

Application Deadline Date Extension in Case of G5 System Unavailability: If you are prevented from electronically submitting your application on the application deadline date because the G5 system is unavailable, we will grant you an extension until midnight, Washington, DC time, the following business day to enable you to transmit your application electronically. We will grant this extension if—

(1) You are a registered user of the G5 system and you have initiated an electronic application for this competition; and

(2)(a) G5 is unavailable for 60 minutes or more between the hours of 8:30 a.m. and 11:00 p.m., Washington, DC time, on the application deadline date; or

(b) G5 is unavailable for any period of time between 11:00 p.m. and midnight, Washington, DC time, on the application deadline date.

We must acknowledge and confirm these periods of unavailability before granting you an extension. To request this extension or to confirm our acknowledgment of any system unavailability, you may contact either

(1) the office listed elsewhere in this notice under **FOR FURTHER INFORMATION CONTACT** or (2) the G5 help desk at 1–888–336–8930. If G5 is unavailable due to technical problems with the system and, therefore, the application deadline is extended, an email will be sent to all registered users who have initiated a G5 application. Extensions referred to in this section apply only to the unavailability of the G5 system.

II. Rulemaking

Section 222.3 of CFR Title 34, which establishes the annual January 31 Impact Aid application deadline, is currently in effect. However, due to changes in the applications that were necessitated by legislative amendments in the 2013 National Defense Authorization Act (Pub. L. 112–239) and the related revision, production, and distribution of the application packages, the Secretary extends the deadline for the potential applicants under section 8002 for fiscal year 2014. Because this amendment makes a procedural change for this year only as a result of unique circumstances, proposed rulemaking is not required under 5 U.S.C. 553(b)(A). In addition, the Secretary has waived rulemaking under 5 U.S.C. 553(b)(B) for the one-time suspension of the regulatory deadline date because it would be impracticable and contrary to the public interest. It would be impracticable because Section 8002 applicants need to be able to submit an FY 2014 application as soon as possible after January 31, 2013, to receive funding for their 2013–2014 school year on a timely basis. The months required for rulemaking would make it impossible for districts to receive this annual funding in a timely manner. Rulemaking would also be contrary to the public interest because the Department's ability to make FY 2014 payments would be stalled, thus affecting school districts in their planning and provision of services.

IV. Other Information

Accessible Format: Individuals with disabilities can obtain this document and a copy of the application package in an accessible format (e.g., braille, large print, audiotape, or compact disc) on request to the program contact listed under **FOR FURTHER INFORMATION CONTACT**.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available via the Federal Digital System at: *www.gpo.gov/fdsys.* At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Adobe Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at: *www.federalregister.gov.* Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Program Authority: 20 U.S.C. 7702.

Dated: September 6, 2013.

Deborah S. Delisle,

Assistant Secretary for Elementary and Secondary Education.

[FR Doc. 2013–22127 Filed 9–10–13; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Advisory Committee on Student Financial Assistance: Meeting

AGENCY: Advisory Committee on Student Financial Assistance, ED.

ACTION: Cancellation notice of an opening meeting/hearing.

SUMMARY: The Advisory Committee on Student Financial Assistance gives notice of the cancellation of the meeting scheduled for September 19, 2013 announced in the **Federal Register** on August 21, 2013 in Vol. 78, No. 162.

The meeting will be rescheduled for a date to be announced in the future.

FOR FURTHER INFORMATION CONTACT: Ms. Janet Chen, Director of Programs, Advisory Committee on Student Financial Assistance, Capitol Place, 80 F Street NW., Suite 413, Washington DC 20202–7582, (202) 219–2099; *http://www2.ed.gov/ACSFA.*

Dated: September 5, 2013.

William J. Goggin,

Executive Director, Advisory Committee on Student Financial Assistance.

[FR Doc. 2013–22068 Filed 9–10–13; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Proposed Agency Information Collection Extension

AGENCY: U.S. Department of Energy.

ACTION: Notice and request for OMB review and comment.

SUMMARY: The Department of Energy (DOE) has submitted to the Office of Management and Budget (OMB) for clearance, a proposal for collection of information under the provisions of the Paperwork Reduction Act of 1995. The submission seeks a three year extension to the original collection.

DATES: Comments regarding this proposed collection must be received on or before October 11, 2013. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, please advise the DOE Desk Officer at Office of Management and Budget (OMB) of your intention to make a submission as soon as possible. The Desk Officer may be telephoned at 202–395–4650.

ADDRESSES: Written comments should be sent to the DOE Desk Officer, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 10102, 735 17th Street NW., Washington, DC 20503.

And to

Mark Westergard, U.S. Department of Energy, LPO–7–, Room 4B–160, 1000 Independence Avenue SW., Washington, DC 20585 or by fax at 202–287–6949, or by email at *LPO.PaperworkReductionAct.Comments@hq.doe.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to Mark Westergard, *LPO.PaperworkReductionAct.Comments@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: This information collection request contains: (1) Information Collection Request Title: 10 CFR Part 609—Loan Guarantees for Projects that Employ Innovative Technologies; (2) Type of Request: Reinstatement (3) Purpose: This information collection package covers collection of information necessary to evaluate applications for loan guarantees submitted under Title XVII of the Energy Policy Act of 2005, as amended, 42 U.S.C. 16511–16516. Applications for loan guarantees submitted to DOE in response to a solicitation must contain certain information. This information will be used to analyze whether a project is eligible for a loan guarantee and to evaluate the application under criteria specified in 10 CFR Part 609. The collection of this information is critical to ensure that the government has sufficient information to determine whether applicants meet the eligibility requirements to qualify for a DOE loan guarantee and to provide DOE with sufficient information to evaluate an

applicant's project using the criteria specified in 10 CFR Part 609; (5) Annual Estimated Number of Respondents: 100 Pre-Applications/10 Full Applications; (6) Annual Estimated Number of Total Responses: It is estimated that the total number of annual responses will not exceed 100; (7) Annual Estimated Number of Burden Hours: 13,000 hours, most of which is likely to be time committed by firms that seek debt and/or equity financing for their projects, regardless of their intent to apply for a DOE loan guarantee; (8) Annual Estimated Reporting and Recordkeeping Cost Burden: It is estimated that the annual estimated reporting and recordkeeping cost burden for applicants will not exceed $25,000 per annum.

Authority: Title XVII of the Energy Policy Act of 2005 42 U.S.C. 16511–16516.

Issued in Washington, DC, on September 5, 2013.

David G. Frantz,

Acting Executive Director, Loan Programs Office.

[FR Doc. 2013–22117 Filed 9–10–13; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Electricity Advisory Committee

AGENCY: Office of Electricity Delivery and Energy Reliability, Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: This notice announces a meeting of the Electricity Advisory Committee (EAC). The Federal Advisory Committee Act (Pub. L. 92– 463, 86 Stat. 770) requires that public notice of these meetings be announced in the **Federal Register.**

DATES: Wednesday, October 2, 2013; 12:00 p.m.–5:15 p.m. (EDT). Thursday, October 3, 2013; 8:00 a.m.–3:10 p.m. (EDT).

ADDRESSES: National Rural Electric Cooperative Association, 4301 Wilson Boulevard, Arlington, Virginia 22203.

FOR FURTHER INFORMATION CONTACT: Matthew Rosenbaum, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy, Forrestal Building, Room 8G–017, 1000 Independence Avenue SW., Washington, DC 20585; Telephone: (202) 586–1060 or Email: *matthew.rosenbaum@hq.doe.gov.*

SUPPLEMENTARY INFORMATION:

Purpose of the Committee: The Electricity Advisory Committee (EAC) was re-established in July 2010, in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C., App. 2, to provide advice to the U.S. Department of Energy (DOE) in implementing the Energy Policy Act of 2005, executing the Energy Independence and Security Act of 2007, and modernizing the nation's electricity delivery infrastructure. The EAC is composed of individuals of diverse backgrounds selected for their technical expertise and experience, established records of distinguished professional service, and their knowledge of issues that pertain to electricity.

Tentative Agenda: The meeting of the EAC is expected to include discussion of the activities of the Energy Storage Technologies Subcommittee, the Smart Grid Subcommittee, and the Transmission Subcommittee, as well as discussions of distributed resource integration and lessons for grid resilience.

Tentative Agenda: October 2, 2013

12:00 p.m.–1:00 p.m. Swearing in Ceremony and Ethics Briefing—For New EAC Members
12:00 p.m.–1:00 p.m. EAC Leadership Committee Meeting
12:00 p.m.–1:00 p.m. Registration
1:00 p.m.–1:15 p.m. Welcome and Developments since the June 2013 Meeting
1:15 p.m.–1:45 p.m. Update on DOE Office of Electricity Delivery and Energy Reliability (OE) 2013 Current Programs and Initiatives
1:45 p.m.–2:05 p.m. DOE Energy Storage Program Update
2:00 p.m.–2:20 p.m. Break
2:50 p.m.–3:10 p.m. FERC Update
2:20 p.m.–4:00 p.m. Distributed Resource Integration Panel
4:00 p.m.–5:10 p.m. EAC Storage Subcommittee Activities and Plans for 2013
5:10 p.m.–5:15 p.m. Wrap up and Adjourn Day One of October 2013 EAC Meeting

Tentative Agenda: October 3, 2013

8:00 a.m.–9:40 a.m. Post-Sandy: Lessons for Grid Resilience Panel
9:40 a.m.–10:50 a.m. EAC Transmission Subcommittee 2013 Papers and Work Plan for 2013
10:50 a.m.–11:00 a.m. Break
11:00 a.m.–12:20 p.m. DOE Keynote Speaker
12:20 p.m.–1:40 p.m. Lunch (Local Restaurants)
1:40 p.m.–2:50 p.m. EAC Smart Grid Subcommittee Papers and Work Plans for 2013
2:50 p.m.–3:05 p.m. Public Comments (Must register to comment at time of check-in)
3:05 p.m.–3:10 p.m. Wrap Up and Adjourn October 2013 EAC Meeting

The meeting agenda may change to accommodate EAC business. For EAC agenda updates, see the EAC Web site at: *http://energy.gov/oe/services/electricity-advisory-committee-eac.*

Public Participation: The EAC welcomes the attendance of the public at its meetings. Individuals who wish to offer public comments at the EAC meeting may do so on Thursday, October 3, 2013, but must register at the registration table in advance. Approximately 15 minutes will be reserved for public comments. Time allotted per speaker will depend on the number who wish to speak but is not expected to exceed three minutes. Anyone who is not able to attend the meeting, or for whom the allotted public comments time is insufficient to address pertinent issues with the EAC, is invited to send a written statement to Mr. Matthew Rosenbaum.

You may submit comments, identified by ''*Electricity Advisory Committee Open Meeting'',* by any of the following methods:

- *Mail/Hand Delivery/Courier:* Matthew Rosenbaum, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy, Forrestal Building, Room 8G–017, 1000 Independence Avenue SW., Washington, DC 20585.
- *Email: matthew.rosenbaum@hq.doe.gov.* Include ''Electricity Advisory Committee Open Meeting'' in the subject line of the message.
- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name and identifier. All comments received will be posted without change to *http://energy.gov/oe/services/electricity-advisory-committee-eac,* including any personal information provided.

- *Docket:* For access to the docket, to read background documents or comments received, go to *http://energy.gov/oe/services/electricity-advisory-committee-eac.*

The following electronic file formats are acceptable: Microsoft Word (.doc), Corel Word Perfect (.wpd), Adobe Acrobat (.pdf), Rich Text Format (.rtf), plain text (.txt), Microsoft Excel (.xls), and Microsoft PowerPoint (.ppt). If you submit information that you believe to be exempt by law from public disclosure, you must submit one complete copy, as well as one copy from which the information claimed to be exempt by law from public disclosure has been deleted. You must also explain

the reasons why you believe the deleted information is exempt from disclosure.

DOE is responsible for the final determination concerning disclosure or nondisclosure of the information and for treating it in accordance with the DOE's Freedom of Information regulations (10 CFR 1004.11).

Note: Delivery of the U.S. Postal Service mail to DOE may be delayed by several weeks due to security screening. DOE, therefore, encourages those wishing to comment to submit comments electronically by email. If comments are submitted by regular mail, the Department requests that they be accompanied by a CD or diskette containing electronic files of the submission.

Minutes: The minutes of the EAC meeting will be posted on the EAC Web page at *http://energy.gov/oe/services/electricity-advisory-committee-eac.* They can also be obtained by contacting Mr. Matthew Rosenbaum at the address above.

Issued in Washington, DC, on September 5, 2013.

LaTanya R. Butler,

Deputy Committee Management Officer.

[FR Doc. 2013–22119 Filed 9–10–13; 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 corporate filings:

Docket Numbers: EC13–143–000.
Applicants: Seneca Generation, LLC, Lake Lynn Generation, LLC, All Dams Generation, LLC, PE Hydro Generation, LLC, FirstEnergy Service Company.
Description: Joint Application for Authorization under Section 203 of the Federal Power Act and Requests for Waivers, Confidential Treatment, and Expedited Action of Seneca Generation, LLC, et al.
Filed Date: 9/4/13.
Accession Number: 20130904–5136.
Comments Due: 5 p.m. ET 9/25/13.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER13–1489–001.
Applicants: Quantum Lake Power, LP.
Description: Notice of Non-Material Change in Status of Quantum Lake Power, LP.
Filed Date: 9/3/13.
Accession Number: 20130903–5144.
Comments Due: 5 p.m. ET 9/24/13.

Docket Numbers: ER13–2307–000.
Applicants: Midcontinent Independent System Operator, Inc.
Description: 09–03–2013 SA 2491 Hazleton-Mitchell Amend MPFCA to be effective 9/4/2013.
Filed Date: 9/3/13.
Accession Number: 20130903–5112.
Comments Due: 5 p.m. ET 9/24/13.

Docket Numbers: ER13–2308–000.
Applicants: Sapphire Power Marketing LLC.
Description: Application for Market-Based Rate Authorization to be effective 9/4/2013.
Filed Date: 9/3/13.
Accession Number: 20130903–5115.
Comments Due: 5 p.m. ET 9/24/13.

Docket Numbers: ER13–2309–000.
Applicants: PacifiCorp.
Description: BPA Construction Agreement (Summer Lake PMU) to be effective 9/4/2013.
Filed Date: 9/3/13.
Accession Number: 20130903–5133.
Comments Due: 5 p.m. ET 9/24/13.

Docket Numbers: ER13–2310–000.
Applicants: Midcontinent Independent System Operator, Inc.
Description: Annual Calculation of the Cost of New Entry value (CONE) for each Local Resource Zone (LRZ) in the MISO Region of Midcontinent Independent System Operator, Inc.
Filed Date: 9/3/13.
Accession Number: 20130903–5143.
Comments Due: 5 p.m. ET 9/24/13.

Docket Numbers: ER13–2312–000.
Applicants: Puget Sound Energy, Inc.
Description: Puget Sound Energy, Inc. submits Average System Cost Filing for Sales of Electric Power to the Bonneville Power Administration, FY 2014–2015.
Filed Date: 9/4/13.
Accession Number: 20130904–5075.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2313–000.
Applicants: ISO New England Inc., New England Power Pool Participants Committee.
Description: ISO New England Inc. submits tariff filing per 35.13(a)(2)(iii: Market Rule Changes to Modify Shortage Event Definition to be effective 11/3/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5090.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2314–000.
Applicants: Arizona Public Service Company.
Description: Eldorado Moenkopi 500kV Agreement—Certificate of Concurrence RS 269 to be effective 9/16/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5105.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2315–000.
Applicants: Pennsylvania Electric Company, PJM Interconnection, L.L.C.
Description: FirstEnergy and Penelec submit First Revised Service Agreement No. 3596 to be effective 12/31/9998.
Filed Date: 9/4/13.
Accession Number: 20130904–5117.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2316–000.
Applicants: Seneca Generation, LLC.
Description: Application for Market-Based Rate Authorization to be effective 9/5/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5120.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2317–000.
Applicants: Lake Lynn Generation, LLC.
Description: Lake Lynn Generation, LLC submits Application for Market-Based Rate Authorization to be effective 9/5/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5126.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2318–000.
Applicants: All Dams Generation, LLC.
Description: All Dams Generation, LLC submits Application for Market-Based Rate Authorization to be effective 9/5/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5129.
Comments Due: 5 p.m. ET 9/25/13.

Docket Numbers: ER13–2319–000.
Applicants: PE Hydro Generation, LLC.
Description: PE Hydro Generation, LLC submits Application for Market-Based Rate Authorization to be effective 9/5/2013.
Filed Date: 9/4/13.
Accession Number: 20130904–5130.
Comments Due: 5 p.m. ET 9/25/13.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: September 4, 2013.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2013–22092 Filed 9–10–13; 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: RP13–1313–000.
Applicants: Enable Gas Transmission, LLC.
Description: Negotiated Rate Filing—September 2013—Tenaska Attachment A to be effective 12/31/9998.
Filed Date: 9/4/13.
Accession Number: 20130904–5115.
Comments Due: 5 p.m. ET 9/16/13.

Docket Numbers: CP13–538–000.
Applicants: Southern Natural Gas Company, L.L.C.
Description: Application for Authorization of Abandonment of Southern Natural Gas Company, L.L.C.
Filed Date: 8/23/13.
Accession Number: 20130823–5164.
Comments Due: 5 p.m. ET 9/13/13.

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.

Filings in Existing Proceedings

Docket Numbers: CP11–56–003.
Applicants: Texas Eastern Transmission, LP.
Description: Verification for Amendment Application of Texas Eastern Transmission, LP.
Filed Date: 9/5/13.
Accession Number: 20130905–5024.
Comments Due: 5 p.m. ET 9/13/13.

Any person desiring to protest in any of the above proceedings must file in accordance with Rule 211 of the Commission's Regulations (18 CFR § 385.211) on or before 5:00 p.m. Eastern time on the specified comment date.

The filings are accessible in the Commission's eLibrary system by clicking on the links or 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.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2013–22093 Filed 9–10–13; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9900–77–ORD; Docket ID No. EPA–HQ–ORD–2011–0895]

Draft Research Report: Investigation of Ground Water Contamination Near Pavillion, Wyoming

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice to discontinue public comment period.

SUMMARY: Following the June 20, 2013, press release, the EPA is discontinuing the public comment period for the external review of the draft research report titled, ''Investigation of Ground Water Contamination near Pavillion, Wyoming.'' The draft research report was prepared by the National Risk Management Research Laboratory, within the EPA Office of Research and Development, and EPA Region 8. The EPA does not plan to finalize or seek peer review of this draft report.

DATES: The public comment period began December 14, 2011, and ends on the date of this notice.

Additional Information: For information on the docket, *www.regulations.gov*, or the public comment period, please contact the Office of Environmental Information (OEI) Docket (Mail Code: 2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone: 202–566–1752; facsimile: 202–566–1753; or email: *ORD.Docket@epa.gov.*

For information on the draft report, please contact Rebecca Foster, U.S. Environmental Protection Agency, P.O. Box 1198, Ada, OK 74821; telephone: 580–436–8750; facsimile: 580–436–8529; or email: *foster.rebecca@epa.gov.*

SUPPLEMENTARY INFORMATION: All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically at *http://www.regulations.gov* or in hard copy at the OEI Docket in the EPA Headquarters Docket Center.

Lek Kadeli,

Principal Deputy Assistant Administrator, Office of Research and Development.

[FR Doc. 2013–22114 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2013–0001; FRL–9398–8]

SFIREG Full Committee; Notice of Public Meeting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Association of American Pesticide Control Officials (AAPCO)/State FIFRA Issues Research and Evaluation Group (SFIREG), Environmental Quality Issues (EQI) Committee will hold a 2-day meeting, beginning on October 21, 2013, and ending October 22, 2013. This notice announces the location and times for the meeting and sets the tentative agenda topics.

DATES: The meeting will be held on Monday, October 21, 2013, from 8:30 a.m. to 5 p.m., and on Tuesday, October 22, 2013, from 8:30 a.m. to 12 noon.

To request accommodation of a disability, please contact the person listed under **FOR FURTHER INFORMATON CONTACT,** preferably at least 10 days prior to the meeting, to give EPA as much time as possible to process your request.

ADDRESSES: The meeting will be held at EPA, One Potomac Yard (South Bldg.) 2777 Crystal Dr., Arlington, VA, 4th Floor, South Conference Room.

FOR FURTHER INFORMATION CONTACT: Ron Kendall, Field and External Affairs Division (7506P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (703) 305–5561; fax number: (703) 305–5884; email address: *kendall.ron@epa.gov.* or Grier Stayton, SFIREG Executive Secretary, P.O. Box 466, Milford, DE 19963; telephone number (302) 422–8152; fax (302) 422–2435; email address: *aapco-sfireg@comcast.net.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are interested in pesticide regulation issues affecting States and any discussion between EPA and SFIREG on Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) field implementation issues related to human health, environmental exposure to pesticides, and insight into EPA's decisionmaking process. You are invited and encouraged to attend the meetings and participate as appropriate. Potentially affected entities may include, but are not limited to:

Those persons who are or may be required to conduct testing of chemical substances under the Federal Food, Drug and Cosmetics Act (FFDCA), or FIFRA and those who sell, distribute, or use pesticides, as well as any non-government organization.

If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How can I get copies of this document and other related information?

The docket for this action, identified by docket ID number EPA–HQ–OPP–2013–0001 is available at *http://www.regulations.gov,* or at the Office of Pesticide Programs Regulatory Public Docket Center (EPA/DC), EPA West Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPP Docket is (703) 305–5805. Please review the visitor instructions and additional information about the docket available at *http://www.epa.gov/dockets.*

II. Tentative Agenda Topics

1. Removal of aminopyralid from use in northeastern States due to compost contamination.
2. Availability of laboratory equipment to detect aminopyralid and similar pesticide residues in compost at biologically significant concentrations.
3. Status of pollinator protection efforts.
4. Bee incident updates and associated analytical detections.
5. Endangered and threatened species update.
6. Demo of revisions to the Pesticides of Interest National Tracking System (POINTS).

III. How can I request to participate in this meeting?

This meeting is open for the public to attend. You may attend the meeting without further notification.

List of Subjects

Environmental protection, Administrative practice and procedure, Aminopyralid, Bees, Compost, Endangered and threatened species, Health, Pesticides and pests, Pesticides of Interest National Tracking System (POINTS), Pollinators.

Dated: August 28, 2013.

Jay S. Ellenberger,

Acting Director, Field and External Affairs Division, Office of Pesticide Programs.

[FR Doc. 2013–21907 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2013–0025; FRL–9397–9]

Notice of Receipt of Pesticide Products; Registration Applications To Register New Uses

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces receipt of applications to register new uses for pesticide products containing currently registered active ingredients pursuant to the provisions of section 3(c) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended. This notice provides the public with an opportunity to comment on the applications.

DATES: Comments must be received on or before October 11, 2013.

ADDRESSES: Submit your comments, identified by docket identification (ID) number and the EPA Registration Number or EPA File Symbol of interest as shown in the body of this document, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *http://www.epa.gov/dockets/contacts.html.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Lois Rossi, Registration Division (RD), (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (703) 305–7090; email address: *RDFRNotices@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

B. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When submitting comments, remember to:

i. Identify the document by docket ID number and other identifying information (subject heading, **Federal Register** date and page number).

ii. Follow directions. The Agency may ask you to respond to specific questions

or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

iii. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

iv. Describe any assumptions and provide any technical information and/or data that you used.

v. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

vi. Provide specific examples to illustrate your concerns and suggest alternatives.

vii. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

viii. Make sure to submit your comments by the comment period deadline identified.

II. Registration Applications

EPA has received applications to register new uses for pesticide products containing currently registered active ingredients. Pursuant to the provisions of FIFRA section 3(c)(4), EPA is hereby providing notice of receipt and opportunity to comment on these applications. Notice of receipt of these applications does not imply a decision by the Agency on these applications. For actions being evaluated under the Agency's public participation process for registration actions, there will be an additional opportunity for a 30-day public comment period on the proposed decision. Please see the Agency's public participation Web site for additional information on this process *http://www.epa.gov/pesticides/regulating/registration-public-involvement.html.* EPA received the following applications to register new uses for pesticide products containing currently registered active ingredients:

1. *EPA Registration File Symbols:* 100–RLNO and 100–RLRN. *Docket ID Number:* EPA–HQ–OPP–2013–0536. *Applicant:* Syngenta Crop Protection, LLC, P.O. Box 18300, Greensboro, NC 27419. *Active ingredient:* Avermectin (Abamectin). *Product Type:* Insecticide. *Proposed Use:* Turf.

2. *EPA Registration Numbers:* 100–895, 100–898, 100–1154, and 100–1259. *Docket ID Number:* EPA–HQ–OPP–2013–0536. *Applicant:* Syngenta Crop Protection, LLC, P.O. Box 18300, Greensboro, NC 27419. *Active ingredient:* Avermectin (Abamectin). *Product Type:* Insecticide. *Proposed Use:* Caneberries (Group 13–07A).

3. *EPA Registration Numbers:* 100–895, 100–1259, 100–1350, 100–1351, 100–1408, and 100–1439. *Docket ID Number:* EPA–HQ–OPP–2013–0536. *Applicant:* Syngenta Crop Protection, LLC, P.O. Box 18300, Greensboro, NC 27419. *Active ingredient:* Avermectin (Abamectin). *Product Type:* Insecticide. *Proposed Uses:* Corn and soybeans.

4. *EPA Registration Numbers:* 100–921 and 100–1363. *Docket ID Number:* EPA–HQ–OPP–2013–0550. *Applicant:* Syngenta Crop Protection, LLC, P.O. Box 18300, Greensboro, NC 27419. *Active ingredient:* Acibenzolar-*s*-methyl. *Product Type:* Fungicide. *Proposed Use:* Sorghum.

5. *EPA Registration File Symbols:* 352–IIE and 352–ITI. *Docket ID Number:* EPA–HQ–OPP–2013–0528. *Applicant:* DuPont Crop Protection, Stine-Haskell Research Center, P.O. Box 30, Newark, DE 19714. *Active ingredient:* Penthiopyrad. *Product Type:* Fungicide. *Proposed Uses:* Potato seed pieces, canola, corn and soybeans.

6. *EPA Registration Numbers:* 352–728 and 352–730. *Docket ID Number:* EPA–HQ–OPP–2013–0235. *Applicant:* DuPont Crop Protection, Stine-Haskell Research Center, P.O. Box 30, Newark, DE 19714. *Active ingredient:* Chlorantraniliprole. *Product Type:* Insecticide. *Proposed Uses:* Tree Nut Group 14–12, and Stone Fruit Group 12–12 (except cherry, chickasaw, plum, and damson plum).

7. *EPA Registration Numbers:* 62719–363 and 62719–341. *Docket ID Number:* EPA–HQ–OPP–2013–0496. *Applicant:* Dow Agrosciences, LLC, 9330 Zionsville Rd, Indianapolis, IN 46268–1054. *Active ingredient:* 1,3-Dichloropropene. *Product Type:* Fumigant (Fungicide). *Proposed Use:* Pineapple.

8. *EPA Registration File Symbol/Registration Number:* 86203–EA and 86203–1. *Docket ID Number:* EPA–HQ–OPP–2013–0528. *Applicant:* Landis International, Inc., P.O. Box 5126, Valdosta, GA 31603–5126, agent on behalf of Mitsui Chemicals Agro, Inc., 1–5–2, Higashi-Shimbashi, Minato-Ku Tokyo, 105–7117, Japan. *Active ingredient:* Penthiopyrad. *Product Type:* Fungicide. *Proposed Use:* Sugarbeets.

List of Subjects

Environmental protection, Pesticides and pest.

Dated: August 30, 2013.

Lois Rossi,

Director, Registration Division, Office of Pesticide Programs.

[FR Doc. 2013–22081 Filed 9–10–13; 8:45 am]

BILLING CODE 6560–50–P

EXPORT-IMPORT BANK

Sunshine Act Meeting

ACTION: Notice of a Partially Open Meeting of the Board of Directors of the Export-Import Bank of the United States.

TIME AND PLACE: Thursday, September 19, 2013 at 1:00 p.m. The meeting will be held at Ex-Im Bank in Room 321, 811 Vermont Avenue NW., Washington, DC 20571.

OPEN AGENDA ITEMS: Item No. 1: PEFCO Secured Notes Resolutions for FY 2014.

PUBLIC PARTICIPATION: The meeting will be open to public observation for Item No. 1 only.

FURTHER INFORMATION: Members of the public who wish to attend the meeting should call Joyce Stone, Office of the Secretariat, 811 Vermont Avenue NW., Washington, DC 20571 (202) 565–3336 by close of business Wednesday, September 18, 2013.

Cristopolis Dieguez,

Program Specialist, Office of the General Counsel.

[FR Doc. 2013–22200 Filed 9–9–13; 4:15 pm]

BILLING CODE 6690–01–P

FEDERAL COMMUNICATIONS COMMISSION

[CG Docket Nos. 10–51 and 03–123; DA 13–1814]

Request for Comment on Petition Filed by Purple Communications, Inc. Regarding the Provision of Both Inbound and Outbound Functionality for Internet Protocol Captioned Telephone Services

AGENCY: Federal Communications Commission.

ACTION: Notice.

SUMMARY: In this document, the Commission, via the Consumer and Governmental Affairs Bureau (Bureau) seeks comment on Purple Communications, Inc. (Purple) petition requesting expedited clarification or partial reconsideration, or, alternatively, a waiver of one aspect of the Commission's *VRS Reform Order* regarding the use of Internet Protocol Captioned Telephone Service (IP CTS) through Web or wireless technologies. The Bureau seeks comment on Purple's assertion that the lack of the requested clarification would force Purple and other IP CTS providers to cease the provision of IP CTS using Web and wireless applications.

DATES: Comments are due September 26, 2013 and reply comments are due October 7, 2013.

ADDRESSES: You may submit comments, identified by CG Docket Nos. 10–51 and 03–123, by any of the following methods:

Electronic Filers: Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS), through the Commission's Web site *http://fjallfoss.fcc.gov/ecfs2/.* Filers should follow the instructions provided on the Web site for submitting comments. For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal service mailing address, and CG Docket Nos. 10–51 and 03–123.

• *Paper filers:* Parties who choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

• All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street SW., Room TW–A325, Washington, DC 20554. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of *before* entering the building.

• Commercial Mail sent by overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

• U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street SW., Washington, DC 20554.

In addition, parties must serve one copy of each pleading with the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street SW., Room CY–B402, Washington, DC 20554, or via email to *fcc@bcpiweb.com.* For detailed instructions for submitting comments and additional information on the rulemaking process, *see* the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Gregory Hlibok, Consumer and Governmental Affairs Bureau, Disability Rights Office, (202) 559–5158 (voice/videophone), email: *Gregory.Hlibok@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Bureau's Public Notice, document DA 13–1814, released on August 27, 2013. The full text of document DA 13–1814, and any subsequently filed documents in this matter will be available for public inspection and copying via ECFS, and during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY–A257, Washington, DC 20554. It also may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street SW., Room CY–B402, Washington, DC 20554, telephone: (800) 378–3160, fax: (202) 488–5563, or Internet: *www.bcpiweb.com.* Document DA 13–1814 can also be downloaded in Word or Portable Document Format (PDF) at *http://www.fcc.gov/encyclopedia/telecommunications-relay-services-trs.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (TTY).

Synopsis

1. On July 8, 2013, Purple filed a petition requesting expedited clarification or partial reconsideration, or, alternatively, a waiver of one aspect of the *VRS Reform Order,* published at 78 FR 40582, July 5, 2013, regarding the use of Internet Protocol Captioned Telephone Service (IP CTS) through Web or wireless technologies. Purple Communications, Inc., *Petition of Purple Communications, Inc. for Expedited Clarification or Partial Reconsideration or, Alternatively, a Waiver,* CG Docket Nos. 03–123 and 10–51 (Purple Petition).

2. Specifically, Purple requests that the Commission clarify that footnote 122 of the *VRS Reform Order,* stating that ''calls that are completed using a technology that does not provide both inbound and outbound functionality are not compensable from the TRS Fund,'' does not apply when users access IP CTS through Web and wireless services. Purple Petition at 1. Purple asserts that this footnote, if left intact, would force Purple and other IP CTS providers to cease the provision of IP CTS using Web and wireless applications because ''there is no technology currently available that allows inbound IP CTS over Web or wireless technologies to be captioned without some intermediary step.'' Purple Petition at 1 and 2.

Federal Communications Commission.

Gregory Hlibok,

Chief, Disability Rights Office, Consumer and Governmental Affairs Bureau.

[FR Doc. 2013–22122 Filed 9–10–13; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL DEPOSIT INSURANCE CORPORATION

Notice to All Interested Parties of the Termination of the Receivership of 10070, Horizon Bank, Pine City, MN

Notice is hereby given that the Federal Deposit Insurance Corporation (''FDIC'') as Receiver for Horizon Bank, Pine City, Minnesota (''the Receiver'') intends to terminate its receivership for said institution. The FDIC was appointed receiver of Horizon Bank on June 26, 2009. The liquidation of the receivership assets 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 receivership will serve no useful purpose. Consequently, notice is given that the receivership 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 the receivership, such comment must be made in writing and sent within thirty days of the date of this Notice to: Federal Deposit Insurance Corporation, Division of Resolutions and Receiverships, Attention: Receivership Oversight Department 32.1, 1601 Bryan Street, Dallas, TX 75201.

No comments concerning the termination of this receivership will be considered which are not sent within this time frame.

Dated: September 5, 2013.

Federal Deposit Insurance Corporation.

Robert E. Feldman,

Executive Secretary.

[FR Doc. 2013–22063 Filed 9–10–13; 8:45 am]

BILLING CODE 6714–01–P

FEDERAL MARITIME COMMISSION

Notice of Agreements Filed

The Commission hereby gives notice of the filing of the following agreements under the Shipping Act of 1984. Interested parties may submit comments

on the agreements to the Secretary, Federal Maritime Commission, Washington, DC 20573, within ten days of the date this notice appears in the **Federal Register**. Copies of the agreements are available through the Commission's Web site (*www.fmc.gov*) or by contacting the Office of Agreements at (202) 523–5793 or *tradeanalysis@fmc.gov*.

Agreement No.: 012139–001.

Title: OVSA/MSC Space Charter Agreement.

Parties: Hamburg-Sud, MSC Mediterranean Shipping Company S.A., CMA CGM, S.A./ANL Singapore Pte Ltd., and Hapag-Lloyd AG.

Filing Parties: Wayne R. Rohde, Esq.; Cozen O'Connor; 1627 I Street NW.; Suite 1100; Washington, DC 20006–4007.

Synopsis: The Amendment removes Maersk as a party to the Agreement.

Agreement No.: 012223.

Title: Assessment Agreement of Carrier Members of United States Maritime Alliance, Ltd.

Parties: APL, Ltd.; Atlantic Container Line; China Shipping (North America) Holding Co., Ltd.; CMA CGM Group; CCNI; Columbia Coastal Transport; COSCO Container Lines Americas, Inc.; CSAV Group North America; Evergreen Shipping Agency (America) Corp.; Hamburg Sud North America, Inc.; Hanjin Shipping Company, Ltd.; Hapag-Lloyd (America), Inc; Horizon Lines, LLC; Hyundai Merchant Marine (America), Inc.; ''K'' Line America; Maersk Agency USA, Inc.; Mediterranean Shipping Company, USA Inc.; MOL (America) Inc.; NYK Line (North America), Inc; OOCL (USA), Inc.; Turkon America, Inc.; United Arab Shipping Company; Wallenius Wilhelmsen Logistics Americas, LLC; Yang Ming (America) Corp.; and Zim American Integrated Shipping Services Company, Inc.

Filing Party: William M. Spelman; The Lambos Firm, LLP; 303 South Broadway, Suite 410; Tarrytown, NY 10591.

Synopsis: The Agreement establishes the assessment formula for the funding of obligations by the carriers arising under the 2012–2018 USMX–ILA Master Contract that establishes the terms and conditions for longshore employees working on the Atlantic and Gulf Coasts of the United States.

Dated: September 6, 2013.

By Order of the Federal Maritime Commission.

Karen V. Gregory,

Secretary.

[FR Doc. 2013–22142 Filed 9–10–13; 8:45 am]

BILLING CODE 6730–01–P

FEDERAL MARITIME COMMISSION

Ocean Transportation Intermediary License Applicants

The Commission gives notice that the following applicants have filed an application for an Ocean Transportation Intermediary (OTI) license as a Non-Vessel-Operating Common Carrier (NVO) and/or Ocean Freight Forwarder (OFF) pursuant to section 19 of the Shipping Act of 1984 (46 U.S.C. 40101). Notice is also given of the filing of applications to amend an existing OTI license or the Qualifying Individual (QI) for a licensee.

Interested persons may contact the Office of Ocean Transportation Intermediaries, Federal Maritime Commission, Washington, DC 20573, by telephone at (202) 523–5843 or by email at *OTI@fmc.gov*.

Abaco Logistics Corporation (OFF), 8051 NW 67th Street, Miami, FL 33166, Officers:, Manuel T. Soto, Vice President (QI), Jhon J. Silva Villa, President, Application Type: New OFF License.

Alliance Pacific Corporation, Inc. (NVO & OFF), 6400 Highlands Parkway, Suite F, Smyrna, GA 30082, Officers:, Simon J. Button, CEO (QI), Dave Tighe, CFO, Application Type: QI Change & Add OFF Service.

American General Logistics, Inc. (NVO), 626 N. Chapman Street, West Covina, CA 91790, Officer:, Xinquing Ran, President (QI), Application Type: New NVO License.

APL Logistics Ltd (NVO), 456 Alexandra Road, Suite #06–00, Singapore, 119962 Singapore, Officers:, Anthony M. Zasimovich, Assistant Vice President (QI), YatChung Ng, Director, Application Type: QI Change.

C.H. Robinson International, Inc. dba Christal Lines (NVO & OFF), 14701 Charison Road, Eden Prairie, MN 55347, Officers:, Kenneth D. Sine, Vice President (QI), Scott Satterlee, President, Application Type: Add Trade Name, C.H. Robinson Freight Services, Ltd.

Chijioke Samuel Ilochonwu dba Nobles (NVO), 6258 Ludington Drive, Suite 1, Houston, TX 77035, Officer:, Chijioke S. Ilochonwu, Sole Proprietor (QI), Application Type: New NVO License.

CMA CGM Logistics USA LLC (NVO & OFF), 1 Meadowlands Plaza, Suite 201, East Rutherford, NJ 07073, Officers:, Nicalaos Fafoutis, Chief Compliance Officer (QI), Frank J. Baragona, Member, Application Type: QI Change.

D & D Transport, Inc. (NVO & OFF), 4869 Peavey Drive, Meridian, MS 39301, Officers:, Courtland Gray, Secretary (QI), Hartley D. Peavey, CEO, Application Type: QI Change.

EXL Logistics, Inc. (NVO), 1913 NW 79th Avenue, Miami, FL 33126, Officers:, Marcelo Kroeff, Vice President (QI), Andrea Landau, Secretary, Application Type: New NVO License.

Expert Log LLC (NVO & OFF), 10540 NW 29th Terrace, Doral, FL 33172, Officers:, Arnor Cavalcante, Manager (QI), Maria E. Souza, Member, Application Type: QI Change.

Final Mile Logistics, Inc. (NVO & OFF), 165 Charles W. Grant Parkway, Atlanta, GA 30354, Officers:, Robert Gentzke, COO (QI), Joseph A. Czyzyk, COB, Application Type: New NVO & OFF License.

Firstrans International Co. (NVO), 1450 Glenn Curtiss Street, Carson, CA 90746, Officers:, Sophann Chum, COO (QI), Yanzhong Ding, President, Application Type: QI Change.

Harvest Logistics, LLC (NVO & OFF), 2441 Porter Street, Los Angeles, CA 90021, Officers:, Aurora Banuelos, Member/Manager (QI), Karla Costilla, Member/Manager, Application Type: New NVO & OFF License.

ICAT Logistics, Inc. (OFF), 6805 Douglas Legum Drive, Elkridge, MD 21075, Officers:, Howard K. Buford, Ocean Freight Director (QI), Richard L. Campbell, Jr., President, Application Type: QI Change.

Jetstream Freight Forwarding, Inc. dba Jetstream (NVO & OFF), 21024 24th Avenue, Suite 114, Sea-Tac, WA 98198, Officers:, Mariya V. Rivera, Secretary (QI), Bryan D. Jennings, President, Application Type: QI Change.

Miac Logistics Corp. (NVO & OFF), 8300 SW 8th Street, Suite 104, Miami, FL 33144, Officers:, Yelena Jimenez, Vice President (QI), Pedro J. Carrillo, President, Application Type: New NVO & OFF License.

Mitsui-Soko (U.S.A.) Incorporated (NVO & OFF), 1651 Glenn Curtiss Street, Carson, CA 90746, Officers: Masafumi Inoue, President (QI), Hiroyuki Hamano, Chairman, Application Type: QI Change.

Nippon Steel & Sumikin Logistics (U.S.A.), Inc. dba Sitra (NVO & OFF), 1822 Brummel Avenue, Elk Grove Village, IL 60007, Officers: Miki Okawachi, Assistant Vice President (QI), Atsushi Tsujioka, President, Application Type: QI Change.

Peters & May USA, Inc. dba Compass Marine (NVO & OFF), 127 N. Walnut Street, Itasca, IL 60143, Officers: Noel A. Viera, Vice President (QI), David J. Holley, President, Application Type: QI Change.

Royal Global Express (OFF), 13225 Marquardt Avenue, Santa Fe Springs, CA 90670, Officers: James E. Barkley, Vice President (QI), Shawn K. Duke, President, Application Type: New OFF License.

Seko Worldwide, LLC (NVO & OFF), 1100 Arlington Heights Road, Suite 600, Itasca, IL 60143, Officers: Jose I. Quesada, Vice President (QI), William J. Wascher, President, Application Type: QI Change.

Sel Logistics (JFK) Inc. (NVO & OFF), 33–70 Prince Street, Suite 606, Flushing, NY 11354, Officers: Leo Chiu, Vice President (QI), Ting F. Yeung, President, Application Type: New NVO & OFF License.

Tazmanian Freight Forwarding, Inc. (NVO & OFF), 4949 Old Grayton Road, Cleveland, OH 44135, Officers: Lori Crawford, Vice President (QI), Tom Beckman, President, Application Type: QI Change.

TFC Partners, LLC dba FreightCo Logistics (NVO), 2453 South Third Street, Jacksonville Beach, FL 32250, Officers: Charles R. Cain, Manager/Member (QI), Theodore B. Clayton, Manager/Member, Application Type: New NVO License.

Trans-Net, Inc. dba Hospitality Logistics International dba Trans-Net (NVO & OFF), 710 5th Avenue NW., Issaquah, WA 98027, Officers: Peter R. Moe, Sr., CEO (QI), Barbara M. Moe, Secretary, Application Type: Delete Trade Name Hospitality Logistics International.

Transtoria Logistic & Solutions Inc (NVO & OFF), 126 NW 164th Avenue, Pembroke Pines, FL 33028, Officers: Victoria R. Mendiolaza, Director (QI), Clover Cercedo, Director, Application Type: New NVO & OFF License.

Tripoli Shipping Services Inc. (NVO & OFF License), 10418 Mykawa Road, Houston, TX 77048, Officers: Misel Repak, COO (QI), Salem Abudher, CEO, Application Type: Add NVO Service.

Triton Logistics Inc (NVO & OFF), 8820 NW 24th Terrace, Doral, FL 33172, Officers: Modesto Gil, Vice President (QI), Antonio Iturriaga, President, Application Type: New NVO & OFF License.

UTI, United States, Inc. dba UTI (NVO & OFF), 100 Ocean Gate, Suite 1500, Long Beach, CA 90802, Officers: Mark Bartmann, Vice President (QI), Christopher Dale, President, Application Type: QI Change.

Vector Global Logistics LLC (NVO & OFF), 887 West Marietta Street NW., M201, Atlanta, GA 30318, Officers: Enrique Alvarez, Managing Member (QI), Brian R. Oxley, Managing Member, Application Type: QI Change.

W.F. Whelan Co. (OFF), 41425 Joy Road, Canton, MI 48187, Officer:, William F. Whelan, President (QI), Application Type: Add Trade Name Omni Worldwide Logistics.

Worldwide Autos LLC (NVO & OFF), 5114 East Broadway Avenue, Tampa, FL 33619, Officer: Yusuf M. Madani, Managing Member (QI), Application Type: New NVO & OFF License.

Dated: August 30, 2013.

By the Commission.

Karen V. Gregory,

Secretary.

[FR Doc. 2013–22134 Filed 9–10–13; 8:45 am]

BILLING CODE 6730–01–P

FEDERAL MARITIME COMMISSION

Privacy Act of 1974; Proposed New Systems of Records

AGENCY: Federal Maritime Commission.

ACTION: Notice of proposed new systems of records.

SUMMARY: This notice is necessary to meet the requirements of the Privacy Act of 1974 to publish in the **Federal Register** notice of the existence and character of record systems maintained by the Federal Maritime Commission.

DATES: *Effective Date:* These systems will be adopted without further notice on October 21, 2013 unless modified to respond to comments received from the public and published in a subsequent notice.

Comment Date: Comments must be received in writing on or before October 21, 2013.

ADDRESSES: You may submit comments: By Postal Mail/Commercial Delivery or via email to: Karen V. Gregory, Secretary, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001, *Secretary@fmc.gov,* Email comments to: *Secretary@FMC.gov* (email Comments as an attachment in MS Word or PDF). Include in the Subject Line: ''Comments on Systems of Records Notice''.

FOR FURTHER INFORMATION CONTACT: Karen V. Gregory, Secretary, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001, (202) 523–5725, *Secretary@fmc.gov.*

SUPPLEMENTARY INFORMATION:

The Commission proposes to adopt the following additional Systems of Records (SOR). Interested parties may participate by filing with the Secretary, Federal Maritime Commission their views and comments pertaining to this Notice. All suggestions for changes in the text should be accompanied by draft language necessary to accomplish the desired changes and should be accompanied by supportive statements and arguments. Comments must be submitted in the prescribed time or the proposed SOR will become effective as scheduled.

Notice is hereby given, that pursuant to the Privacy Act of 1974, 5 U.S.C. 552a, the Commission proposes to establish the following new Systems of Records. The five (5) new systems are proposed to read as follows:

FMC–37

SYSTEM NAME:

Personal Identity Verification Management System (USAccess Credentials).

SYSTEM LOCATION:

Records covered by this system are maintained by a contractor at the contractor's site.

This system is covered by the Office of Personnel Management's government-wide system notice, GSA/GOVT–7.

FMC–38

SYSTEM NAME:

Parking Operation Plan-FMC.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Management Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

This system maintains information on FMC headquarters' employees who are holders of FMC-issued parking permits.

CATEGORIES OF RECORDS IN THE SYSTEM:

Records in this system may include information about individuals, including name, home address, home telephone number, work telephone number, personal vehicle make and model, personal vehicle license number, and state of vehicle registration. These records are captured on applications for parking permits.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

40 U.S.C. Section 486(c); 41 CFR Section 101–20.0 and 41 CFR Section 102–74.305 and the Occupancy Agreement with the General Services Administration (GSA).

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The records in this system of records are used or may be used:

1. By Commission officials to determine the assignment of parking permits to eligible employees.

2. To conduct a quarterly parking revalidation to verify continued employee eligibility for parking permits.

3. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in file folders.

RETRIEVABILITY:

Records are indexed alphabetically by name.

SAFEGUARDS:

Records are maintained in locked file cabinets.

RETENTION AND DISPOSAL:

Records are maintained and disposed of in accordance with General Records Schedule 11, Items 2a and 4a (records destroyed 2 years after termination of parking assignment).

SYSTEM MANAGER(S) AND ADDRESS:

Director of Management Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Director, Office of Management Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefor, and shall meet the requirements of section 503.66 of title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Applicants or FMC employees who are holders of FMC-issued parking permits.

FMC–39

SYSTEM NAME:

FMC General Support System (FMC GSS).

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Information Technology, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

1. Authorized Employees of the Federal Maritime Commission.

2. Authorized Users from other Federal Agencies (DOTS, Military) authenticated via local accounts.

3. All persons/Entities regulated by the FMC.

4. Companies and individuals that have become subject of an investigative or enforcement action.

5. Entities who have requested alternative dispute resolution services.

CATEGORIES OF RECORDS IN THE SYSTEM:

The FMC GSS contains Employee, Filer, Licensee, and Complainant information such as first name, last name, email address, user ID, organization number, social security number (Form–18), carrier name, contract number, amendment number, date filed, effective date, and confirmation number.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

E-Government Act of 2002 (Title III) and OMB Circular A–130.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The FMC Network is a general support system (GSS) that provides core and critical information technology support to a number of hosted applications and databases. The FMC GSS is designed to facilitate the services and resources needed to support FMC operations and FMC's end user community. The purpose of the FMC GSS is to provide FMC employees and/or contractors access to the FMC domain, Email account management, individual and shared electronic storage, interconnection(s) between all FMC end users and the Internet, as well as provide access to agency applications.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained electronically. The FMC GSS system is managed and maintained by FMC OIT staff at its Washington, DC headquarters. The FMC GSS is made up of servers, switches, gateways, and two firewall devices. The servers, switches, gateways, and firewall devices are physically housed in the Data Center at FMC Headquarters. The Data Center is monitored 24 hours a day 7 days a week.

RETRIEVABILITY:

Data is retrievable by: First name, last name, user ID, telephone number, social security number (Form–18), company name, carrier name, contract number, amendment number, date filed, effective date, confirmation number, etc.

SAFEGUARDS:

Currently each user of the FMC GSS must have a unique profile in the Active Directory (AD). When a login is attempted, the entered user ID and encrypted password are verified against the AD. If the user login credentials are not validated, the login attempt fails.

Access to each layer of the network is controlled and monitored by personnel through formal defined authorization, approval, and monitoring processes. Authentication at the network layer incorporates a number of additional security layers, including firewalls, routers, and VPNs. Access to the network, operating system, and database is restricted and granted only to specific pre-approved individuals by the system owner.

User profiles define individual FMC GSS users linked to one or more roles. Permission lists are added to each role, which controls a user's access level.

Each user of the information system has a unique profile and login attempts are verified and validated against a user access list. The system authenticates users with the values specified in the User ID and Password field. All

unverifiable login attempts are denied access to the system.

FMC is in the process of implementing Homeland Security Presidential Directive 12 (HSPD–12). This implementation is expected to be completed by the 2nd Quarter FY 2014.

HSPD–12 requires the use of two-factor authentication for access to government computer systems. To achieve two-factor authentication individuals require a Personal Identity Verification (PIV) card and a Personal Identification Number (PIN). Upon HSPD–12 implementation, FMC GSS will be accessed by individuals utilizing a PIV and PIN.

RETENTION AND DISPOSAL:

Agency data is backed up and retained for five years at which point the backup tapes are overwritten.

SYSTEM MANAGER(S) AND ADDRESS:

Anthony Haywood, CIO Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Anthony Haywood, CIO 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

All personnel and contractors sign non-disclosure agreements prior to accessing the information system following the performance of background investigations that commensurate with the sensitivity of the information and the risk to the FMC GSS. FMC is responsible for determining the position sensitivity levels (or risk levels) for all personnel whose jobs require access to mission critical information. This responsibility includes ensuring that all personnel and contractors have undergone the appropriate background suitability checks and security awareness training. User access is granted based on the principle of least privilege. In accordance with this principle, users are granted only the amount of system access they require to perform their duties. Upon termination or reassignment individuals are re-screened immediately.

CONTESTING RECORD PROCEDURES:

N/A.

RECORD SOURCE CATEGORIES:

Office of Personnel Management report, and reports from other Federal agencies.

FMC–40

SYSTEM NAME:

SERVCON.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Information Technology, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

1. Authorized employees of the Federal Maritime Commission.
2. Authorized users from other Federal Agencies (DOTS, military) authenticated via local accounts.
3. Authorized VOCC and NVOCC Users.

CATEGORIES OF RECORDS IN THE SYSTEM:

1. Successful Contract Filings, Contract Corrections, and Notices records and file data.
2. Unsuccessful Contract Filings and Contract Corrections records.
3. Contract Filing Statistics.
4. Users' file viewing history.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

E-Government Act of 2002 (Title III) and OMB Circular A–130.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The SERVCON records are used or may be used:

1. By Authorized Organization Representatives for official filing of VOCC and NVOCC related contracts to FMC.
2. By Authorized Organization Representatives to make approved changes and amendments to filed contracts.
3. By Authorized Organization Representatives to upload Notices with various information relevant to filed contracts that may be viewed by Commission Officials.
4. By Commission Officials and Authorized Local Users from other Federal Agencies to verify and review the validity of the contract and operations of registered VOCCs and NVOCCs.
5. To refer, where there is an indication of a violation or potential violation of law, whether civil or criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, rule, regulation or order issued pursuant thereto.
6. By a court of law or appropriate administrative board or hearing having review or oversight authority.
7. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETRIEVABILITY:

Data is retrievable by: User ID, organization number, carrier name, contract number, amendment number, date filed, effective date, confirmation number, filer user name, file name file size, file type.

SAFEGUARDS:

Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS) for internal users.

External users' must authenticate against the Passport user database records and are only able to search for files, which the account has uploaded.

RETENTION AND DISPOSAL:

Specific uploaded files are individually removed from the live data tables and placed in a file data removed data table upon disposal request from the filing organizations.

All data records are currently being kept indefinitely.

SYSTEM MANAGER(S) AND ADDRESS:

Anthony Haywood, CIO Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Gary Kardian 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Individuals may receive an external user account by filing form FMC–83 for VOCCs or form FMC–78 for NVOCCs to: Federal Maritime Commission, Bureau of Trade Analysis, 800 North Capitol Street NW., Washington, DC 20573–0001

FMC employees and employees from other Federal Agencies will be given individual review and may gain access if it is within the scope of their responsibilities.

All other inquiries regarding this system of records should be addressed to: Gary Kardian, 800 North Capitol Street NW., Washington, DC 20573–0001.

CONTESTING RECORD PROCEDURES:

The SERVCON system allows external filers to file a Corrected Transmission to edit contract files within two days of the effective date.

Record contests beyond that point in tie should be addressed to: Gary Kardian, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD SOURCE CATEGORIES:

Contract files submitted by authorized Organization representative filers.

FMC–41

SYSTEM NAME:

FMC SQL Database (FMCDB).

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Information Technology, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

1. Authorized employees of the Federal Maritime Commission.
2. Authorized persons from other Federal agencies (DOTS, military) authenticated via local accounts.
3. External Persons registered via form or web submission authorized by FMC analysts for web application access.

CATEGORIES OF RECORDS IN THE SYSTEM:

1. User database for the Form 1, Form 18, and SERVCON web applications.
2. Identification, configuration, and activity records for management of FMC office needs such as BlackBerry usage.
3. User mail and web submitted information and documents for the purpose of registration, review, and reporting of FMC regulated entities such as freight forwarders, vessel-operating common carriers, etc.
4. User mail and web submitted statements and documents regarding FMC regulated entities and analyst response/actions performed in regards to the information.
5. Private internal database tracking analyst statements and rulings regarding persons and organizations derived from user mail and web submitted information.
6. Public external database on the active status of certain FMC registered and managed entities.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

E-Government Act of 2002 (Title III) and OMB Circular A–130.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The FMCDB major application is the Federal Maritime Commission's SQL Database that is the main data store that facilitates the functionality of various FMC minor applications. The routine uses of records include:

1. By maintenance of application user registration, identification, access permissions, and authentication.
2. BlackBerry user identification and activity.

Provision of file repository functionality for digitized documents used by the FMC Office of the Secretary.

3. Registration, review, and status recording for FMC managed entities such as freight forwarders, vessel-operating common carriers, etc.
4. Display of publically available information such as approved organization registrations and agreements.
5. Reviewing user submitted concerns and complaints regarding FMC managed entities to officially address.
6. Record keeping of FMC internal audits and investigations.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS).

RETRIEVABILITY:

Data Retrievability is application dependent. Records for applications involving external user access or organizational records are retrievable in end user applications by the following categories: First name, last name, user ID, telephone number, social security number (Form–18), company name, carrier name, contract number, amendment number, date filed, effective date, confirmation number, etc.

Data may also be retrievable by: Case Number, Case Name, File Name, Active Status, Country, State, Various User Activities, etc.

SAFEGUARDS:

Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS) for internal users.

External users' accounts must authenticate against the Passport user database records and are only able to search files, which the account has uploaded.

RETENTION AND DISPOSAL:

Agency data is backed up and retained for five years at which point the backup tapes are overwritten.

SYSTEM MANAGER(S) AND ADDRESS:

Anthony Haywood, CIO–Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Anthony Haywood, CIO, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

All personnel and contractors sign non-disclosure agreements prior to accessing the information system following the performance of background investigations that commensurate with the sensitivity of the information and the risk to the FMCDB. FMC is responsible for determining the position sensitivity levels (or risk levels) for all personnel whose jobs require access to mission critical information. This responsibility includes ensuring that all personnel and contractors have undergone the appropriate background suitability checks and security awareness training. User access is granted based on the principle of least privilege. In accordance with this principle, users are granted only the amount of system access they require to perform their duties. Upon termination or reassignment individuals are re-screened immediately.

External users may attain access to various external facing applications by submitting a mail or web registration form. Access will be granted upon review by authorized Commission officials.

CONTESTING RECORD PROCEDURES:

External user applications enable users to submit edits to a person or organization registration for review.

Further inquiries may be directed towards individual departments responsible for record analysis.

RECORD SOURCE CATEGORIES:

1. User submitted person and organization registration information and documentation.
2. Analyst reviews and rulings on appropriated tasks.
3. Automated record keeping from user devices.

By the Commission.

Karen V. Gregory,

Secretary.

[FR Doc. 2013–22071 Filed 9–10–13; 8:45 am]

BILLING CODE 6730–01–P

FEDERAL MARITIME COMMISSION

Privacy Act of 1974; Systems of Records

AGENCY: Federal Maritime Commission.

ACTION: Notice to modify systems of records and republication.

SUMMARY: The Federal Maritime Commission proposes to update a number of Privacy Act Systems of Records in its existing inventory of record systems subject to the Privacy Act of 1974, as amended, and to republish the Commission's complete Systems of Records.

DATES: Written Comments must be received no later than October 11, 2013. The amendments will become effective as proposed on October 11, 2013 unless the Commission receives comments that would result in a contrary determination.

ADDRESSES: You may submit written comments to: Karen V. Gregory, Secretary, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001, *Secretary@fmc.gov.* Or email comments to: *Secretary@FMC.gov* (email Comments as an attachment in MS Word or PDF). Include in the Subject Line: ''Comments on Systems of Records Notice''.

FOR FURTHER INFORMATION CONTACT: Karen V. Gregory, Secretary, Federal Maritime Commission, 800 N. Capitol Street, NW., Washington, DC 20573–0001, (202) 523–5725, *Secretary@fmc.gov.*

SUPPLEMENTARY INFORMATION: The Federal Maritime Commission's (FMC) notices for system of records subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended, have been published in the **Federal Register** and are available from the Secretary, Federal Maritime Commission, or from the FMC's Web site at *FMC Systems of Records Based on Privacy Act Issuances.* Notice is given that, pursuant to the Privacy Act of 1974, 5 U.S.C. 552a, the Federal Maritime Commission proposes to revise its current inventory of Systems of Records (SOR) and to republish the FMC's complete SOR.

FMC–8 maintains records information related to the Official Personnel Folder. The Privacy Act notice is being updated to reflect the current System Name and automation of the files in this system.

FMC–18 maintains records information related to Travel Orders/Vouchers File. The Privacy Act notice is being updated to reflect the current office name for the system location and system manager.

FMC–22 maintains records or individuals involved in official investigations conducted by the agency. The Privacy Act notice is being updated to reflect the current system location, individuals covered by the system, records in the system, authority for maintenance of the system, safeguards, retention and disposal, and record source.

FMC–24 maintains records information related to Informal Inquiries and Complaints Files. The Privacy Act notice is being updated to reflect the current system location, individuals covered by the system, routine uses of records maintained in the system, the system manager and address, and record source.

FMC–31 maintains records information related to Debt Collection Files. The Privacy Act notice is being updated to reflect the current system location, system manager and address.

FMC–34 maintains records information related to the Travel Charge Card Program. The Privacy Act notice is being updated to reflect the system location.

Accordingly, the Commission's complete Systems of Records inventory, inclusive of the above listed changes is published in its entirety below.

Federal Maritime Commission

Systems of Records

FMC–1 Personnel Security File
FMC–2 Non-Attorney Practitioner File
FMC–7 Licensed Ocean Transportation Intermediaries Files (Form FMC–18)
FMC–8 Official Personnel Folder
FMC–9 Training Program Records
FMC–10 Desk Audit File
FMC–14 Medical Examination File
FMC–16 Classification Appeals File
FMC–18 Travel Orders/Vouchers File
FMC–19 Financial Disclosure Reports and Other Ethics Program Records
FMC–22 Records Tracking System
FMC–24 Informal Inquiries and Complaints Files
FMC–25 Inspector General File
FMC–26 Administrative Grievance File
FMC–28 Equal Employment Opportunity Complaints File
FMC–29 Employee Performance File System Records
FMC–31 Debt Collection Files
FMC–32 Regulated Persons Index
FMC–33 Payroll/Personnel System
FMC–34 Travel Charge Card Program
FMC–35 Transit Benefits File
FMC–36 SmartPay Purchase Charge Card Program

FMC–1

SYSTEM NAME:

Personnel Security File-FMC.

SECURITY CLASSIFICATION:

Unclassified.

Office of Human Resources, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

1. Employees of the Federal Maritime Commission.
2. Applicants for employment with the Federal Maritime Commission.

CATEGORIES OF RECORDS IN THE SYSTEM:

Results of name checks, inquiries, and investigations to determine suitability for employment with the U.S. Government, and for access to classified information, position sensitivity designation, and record of security clearance issued, if any.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Executive Orders 10450, 12958, and 12968.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The records in this system of records are used or may be used:

1. By Commission officials to determine suitability for employment of an applicant or retention of a current employee and to make a determination that the employment of an applicant or retention of a current employee within the Commission is clearly consistent with the interests of national security.

2. To refer, where there is an indication of a violation or potential violation of law, whether civil or criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged

with enforcing or implementing the statute, rule, regulation or order issued pursuant thereto.

3. To request from a Federal, State, or local agency maintaining civil, criminal, or other relevant enforcement information, data relevant to a Commission decision concerning the hiring or retention of an employee or the issuance of a security clearance.

4. To provide or disclose information to a Federal agency in response to its request in connection with the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision on that matter.

5. By a court of law or appropriate administrative board or hearing having review or oversight authority.

6. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in file folders.

RETRIEVABILITY:

Records are indexed alphabetically by name.

SAFEGUARDS:

Records are maintained in a combination safe in the custody of the Information Security Officer, and access is limited to the Information Security Officer and the Personnel Security Officer and his/her duly authorized representatives.

RETENTION AND DISPOSAL:

Maintain Office of Personnel Management reports of investigation and other FMC records on file until termination of employee from agency. Destroy within 30 days after employee leaves the agency.

SYSTEM MANAGER(S) AND ADDRESS:

Information Security Officer, Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Office of Personnel Management report, and reports from other Federal agencies.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information about individuals that meets the criteria of 5 U.S.C. 552a(k)(5), regarding suitability, eligibility or qualifications for Federal civilian employment or for access to classified information, to the extent that disclosure would reveal the identity of a source who furnished information to the Commission under a promise of confidentiality is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is required to honor promises of confidentiality.

FMC–2

SYSTEM NAME:

Non-Attorney Practitioner File-FMC.

SYSTEM CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Persons, who are not attorneys, who apply for permission to practice before the Commission.

CATEGORIES OF RECORDS IN THE SYSTEM:

Application forms containing descriptions of educational and professional experience and qualifications, taxpayer identification numbers (which may be the social security number), and letters of reference in relation to non-attorney practitioners.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

46 CFR 502.27.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The records in this system of records are used or may be used:

1. By personnel of the Secretary's Office to determine whether a non-attorney should be admitted to practice before the Commission.

2. To refer, where there is an indication of a violation or potential violation of law, whether civil or criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, rule, regulation or order issued pursuant thereto.

3. To request from a Federal, State, or local agency maintaining civil, criminal, or other relevant enforcement information, data relevant to a Commission decision concerning the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant, or other benefit.

4. To provide or disclose information to a Federal agency in response to its request in connection with the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision on that matter.

5. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or

property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Physical records are maintained in file folders in a limited access location. Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS).

RETRIEVABILITY:

Physical records are indexed alphabetically by name. Electronic records are retrievable by name, address, company, application date, admission date, or card number.

SAFEGUARDS:

Physical records are maintained in file cabinets under the control of personnel in the Secretary's office. Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS).

RETENTION AND DISPOSAL:

Records are maintained in the Office of the Secretary for 10 years after applicant ceases to practice and then are transferred to the Federal Records Center. Records are destroyed 20 years thereafter.

SYSTEM MANAGER(S) AND ADDRESS:

Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Applicants.

FMC–7

SYSTEM NAME:

Licensed Ocean Transportation Intermediaries Files (Form FMC–18).

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Bureau of Certification and Licensing, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Records are maintained on individuals, including sole proprietorships, members of partnerships, and officers and owners of corporate licensees, managers and owners of limited liability companies, ex-licensees, and applicants for licenses.

CATEGORIES OF RECORDS IN THE SYSTEM:

The System contains ocean transportation intermediaries (OTIs) names, addresses and taxpayer identification numbers (which may be the Social Security Numbers), as well as the names, addresses, and Social Security Numbers (or alternatively, driver's license numbers, passport numbers or alien registration numbers) of the stockholders, officers, and directors of individual OTIs; descriptions of the relationships the OTI may have with other business entities; corporate organizational documents and business licenses; a record of the OTI's past experience in providing or procuring ocean transportation services; surety bond information with respect to licensed OTIs; and any financial information and/or criminal convictions pertinent to the licensing of the OTIs. Under the Shipping Act of 1984, OTIs may operate as an ocean freight forwarder, a non-vessel-operating common carrier, or both.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 553; secs. 3, 8, 10, 11, 13, 15, 17 and 19, Shipping Act of 1984 (recodified October 2006 as 46 U.S.C. 305, 40102, 40104, 40501–40503, 40901–40904, 41101–41109, 41302–41303, and 41305).

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

These records and information contained in these records may be disclosed as follows:

1. By Commission staff for evaluation of applicants for licensing.
2. By Commission staff for monitoring the activities of licensees to ensure they are in compliance with Commission regulations.
3. To refer, where there is an indication of a violation or potential violation of law whether civil, criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute and the rules, regulations, or orders issued pursuant thereto.
4. To request from a Federal, State, or local agency maintaining civil, criminal or other relevant enforcement information, data relevant to a Commission decision concerning the issuance of a license.
5. To provide or disclose information to a Federal agency in response to its request in connection with the hiring or retention of an employee previously employed by a licensee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant, or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision on that matter.
6. To provide or update information maintained in the U.S. Customs and Border Protection's (CBP) Automated Commercial Environment/International Trade Data System (ACE/ITDS) to verify licensed or registered status of OTIs under Trade Act of 2002 and related CBP requirements, or any other successor agency or organization.
7. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in

connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Physical records are maintained in file folders in a limited access location. Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETRIEVABILITY:

Records are indexed by name and license or organization number.

SAFEGUARDS:

Physical records are maintained in an area of restricted accessibility. Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETENTION AND DISPOSAL:

Applicant and licensee files are kept as long as the application and/or license are active. Files for withdrawn and denied applications, as well as revoked and surrendered licenses are retained for ten years after final action. Thereafter, such files are destroyed in accordance with the Federal Maritime Commission Records Disposition Schedule (Revised June 2010).

SYSTEM MANAGER(S) AND ADDRESS:

Director, Bureau of Certification and Licensing, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Request may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefor, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

1. Information submitted by applicants and licensees.
2. Information submitted by Commission Area Representatives.
3. Information submitted by the general public (e.g., through comments or complaints).
4. Information submitted by surety companies.
5. Information obtained through Internet Web site searches and selected commercial and government database searches conducted by Bureau of Certification and Licensing staff in processing OTI license applications (e.g., Accurint and Dun & Bradstreet).

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

FMC–8

SYSTEM NAME:

Official Personnel Folder and Electronic Official Personnel Folder (eOPF)-FMC.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the Office of Personnel Management's government-wide system notice, OPM/GOVT–1.

FMC–9

SYSTEM NAME:

Training Program Records-FMC.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the Office of Personnel Management's government-wide system notice, OPM/GOVT–1.

FMC–10

SYSTEM NAME:

Desk Audit File-FMC.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Current and former employees of the Federal Maritime Commission.

CATEGORIES OF RECORDS IN THE SYSTEM:

Each record consists of the position classification specialist's notes of conversations, evaluation reports, background papers, and/or research material used to support the final position classification.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

44 U.S.C. 3101 et seq., 5 U.S.C. 1302 and the regulations issued pursuant thereto.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

Information in this system of records is used or may be used:

1. By Commission officials to support decisions on the proper classification of a position.
2. To refer, where there is an indication of a violation or potential violation of law, whether civil or criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, rule, regulation or order issued pursuant thereto.
3. To request from a Federal, State, or local agency maintaining civil, criminal, or other relevant enforcement information, data relevant to a Commission decision concerning the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant, or other benefit.
4. To provide or disclose information to a Federal agency in response to its request in connection with the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract, or the issuance of a license, grant or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision on that matter.
5. By the Office of Personnel Management in the course of an investigation, or evaluating for statistical or management analysis purposes.
6. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the

system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in file folders.

RETRIEVABILITY:

Records are indexed alphabetically by name.

SAFEGUARDS:

Records are maintained in locked file cabinets.

RETENTION AND DISPOSAL:

Records are maintained as long as the position audited remains essential, current, and accurate, after which they are destroyed.

SYSTEM MANAGER(S) AND ADDRESS:

Director of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Human Resources Specialists of the Commission.

FMC–14

SYSTEM NAME:

Medical Examination File-FMC.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the Office of Personnel Management's government-wide system notice, OPM/GOVT–10.

FMC–16

SYSTEM NAME:

Classification Appeals File-FMC.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

Note: This system is covered by the Office of Personnel Management's government-wide system notice, OPM/GOVT–9.

FMC–18

SYSTEM NAME:

Travel Orders/Vouchers File-FMC.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Budget and Finance, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Employees of the Federal Maritime Commission.

CATEGORIES OF RECORDS IN THE SYSTEM:

The record consists of the initial travel order for the individual and the subsequent travel voucher prepared from information supplied by the individual which includes hotel bills, subsistence breakdown, cab fares and air fares.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Federal Travel Regulation, 41 CFR parts 301–304.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

Records in this system of records are used or may be used:

1. By the Commission for the authorization of travel performed by personnel of the Commission.

2. By the Commission to prepare travel vouchers for submission to the Bureau of Public Debt through E-Gov and to maintain internal control of travel expenses within this agency.

3. To refer, where there is an indication of a violation or potential violation of law, whether civil or criminal in nature, information to the appropriate agency, whether Federal, State or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute or rule, regulation or order issued pursuant thereto.

4. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in file folders.

RETRIEVABILITY:

Records are indexed by name or bureau.

SAFEGUARDS:

Records are maintained in a locking file cabinet and monitored by the Director of the Office of Budget and Finance.

RETENTION AND DISPOSAL:

The records are maintained for six years and are then destroyed by shredding (in accordance with General Records Schedule 9).

SYSTEM MANAGER(S) AND ADDRESS:

Director, Office of Budget and Finance, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Individual to whom the record pertains, hotel bills, individual's subsistence record, and Travel Requests (airline or train).

FMC–19

SYSTEM NAME:

Financial Disclosure Reports and Other Ethics Program Records.

SYSTEM LOCATION:

Office of the General Counsel, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

Note: This system is covered by the Office of Government Ethics' government-wide systems notices, OGE/GOVT–1 and OGE/GOVT–2.

FMC–22

SYSTEM NAME:

Records Tracking System.

SYSTEM CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Bureau of Enforcement and Director of Field Investigations, Office of Managing Director, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals whose names may be found in the system include employees, officers, directors, and owners of ocean common carriers, non-vessel-operating common carriers (NVOCCs), ocean freight forwarders, passenger vessel operators, ports and terminal operators, shippers, consignees, conferences and agreements between ocean common carriers, and other entities associated with any of the foregoing. Included are individuals alleged to have violated one of the statutes or regulations administered by the Federal Maritime Commission, individuals who provided information during an investigation, and others necessary to the full development of an investigation. Not included are attorneys, government officials, Federal Maritime Commission employees, or individuals only incidentally involved in an investigation.

CATEGORIES OF RECORDS IN THE SYSTEM:

The Records Tracking System includes records on individuals involved in official investigations conducted by the Director of Field Investigations and the Bureau of Enforcement (BOE), fact finding and formal proceedings instituted by the Federal Maritime Commission, court proceedings, and civil and criminal investigations conducted in association with other government agencies. Investigations include investigations of alleged violations of the statutes or regulations administered by the Commission, ocean transportation intermediary (NVOCC and ocean freight forwarder) application inquiries, OTI application checks, OTI compliance checks, service contract audits, common carrier audits, passenger vessel audits, special inquiries, BOE correspondence with possible unlicensed or unbonded OTIs, undeveloped leads, intelligence activities, and other matters authorized by the Bureau of Enforcement.

The Records Tracking System includes all files and records of the Bureau, wherever located. The system also includes reports or other information from other government agencies, shipping and commercial records, investigative work product, notes of interviews, documents obtained from any source, schedules of data, investigative plans and directives, disclosures, settlement agreements, and any other records prepared in conjunction with a case including information which tends to explain, interpret, or substantiate any of the above. The system also includes indices of these records, tracking systems, and listings of information otherwise included within the system.

The Records Tracking System also includes reports or extracts of reports derived from databases maintained by other government agencies. The FMC has concluded a Memorandum of Understanding (MOU) with U.S. Customs and Border Protection for access to import data collected within the Automated Customs Environment system (ACE), and has executed a separate MOU with the U.S. Census Bureau with respect to export data collected within the Automated Export System (AES). By agreement, this information is received by BOE for investigative purposes only. Reports or extracts of reports are derived from the ACE and AES databases only to the extent necessary to support the agency's investigations.

The Records Tracking System contains information in electronic and paper media. Information within the system may be stored in files or data bases by specific subject or in general groupings. The information remains within the system through analysis, research, corroboration, field investigation, reporting, and referral within the Commission or to another government agency. Information remains within the system whether a case is open or closed or the matter becomes inactive. Information also remains within the system when records are retired to storage or are otherwise purged.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Shipping Act of 1984 (46 U.S.C. 40101–41309), Foreign Shipping Practices Act of 1988 (46 U.S.C. 42301–42307, Section 19 of the Merchant Marine Act, 1920 (46 U.S.C. 42101–42109), and Public Law 89–777 (46 U.S.C. 44101–44106.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

1. In the event that a system of records maintained by the FMC to carry out its functions indicates a violation or potential violation of law or contract, whether civil, criminal or regulatory in nature, and whether arising by general statute or particular program statute, or by rule, regulation, or order issued pursuant thereto, the relevant records in the system of records may be referred, as a routine use, to the appropriate agency, whether Federal, State, local or foreign, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, or rule, regulation or order issued pursuant thereto.

2. A record from this system of records may be disclosed, as a routine use, to a Federal, State or local agency maintaining civil, criminal or other relevant enforcement information or other pertinent information, such as current licenses, if necessary to obtain information relevant to an FMC decision

concerning the assignment, hiring or retention of an individual, the issuance of a security clearance, or the issuance of a license, grant or other benefit.

3. A record from this system of records may be disclosed, as a routine use, to a Federal, State, local or international agency, in response to its request, in connection with the assignment, hiring or retention of an individual, the issuance of a security clearance, the reporting of an investigation of an individual, the letting of a contract, or the issuance of license, grant, or other benefit by the requesting agency to the extent that the information is relevant and necessary to the requesting agency's decision on the matter.

4. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court magistrate or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

5. A record in this system of records may be disclosed as a routine use to either House of Congress, or to the extent of matter within its jurisdiction, any committee or subcommittee thereof, any joint committee of Congress or subcommittee of such joint committee.

6. A record in this system of records may be disclosed, as a routine use, to the Department of Justice in connection with determining whether disclosure thereof is required by the Freedom of Information Act (5 U.S.C. 552).

7. A record in this system may be transferred, as a routine use, to the Office of Personnel Management for personnel research purposes; as a data source for management information; for the production of summary descriptive statistics and analytical studies in support of the function for which the records are collected and maintained; or for related manpower studies.

8. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in paper form in filing cabinets and in a Lektriever, Series 80. Statistical data taken from record forms are maintained in a personal computer.

RETRIEVABILITY:

Information filed by case of subject file. Records pertaining to individuals are accessed by reference to the Bureau of Enforcement's name-relationship index system.

SAFEGUARDS:

Records are located in locked metal file cabinets or in metal file cabinets in secured rooms or secured premises with access limited to those whose official duties require access. The Lektriever files are located in a secured room with access limited to those whose official duties require access. Computer information is safeguarded with an access code. Access to ACE and AES data may be further limited only to certain FMC agency personnel having need to know and other qualifications as specified in a MOU with CBP or the Census Bureau. Files are maintained in buildings that have 24 hour security guards.

RETENTION AND DISPOSAL:

Records are retained for 7 years after the end of the calendar year in which the case file actions are concluded; the records are destroyed 12 years after cutoff.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Bureau of Enforcement, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefor, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Individual shippers, carriers, NVOCCs, ocean freight forwarders, those authorized by the individual to furnish information, trade sources, trade databases including ACE and AES, investigative agencies, investigative personnel and attorneys of the Bureau of Enforcement and other sources of information.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties. Information derived from other governmental sources, e.g. Customs and Border Protection and Census Bureau, may be subject to additional exemptions pursuant to their governing statutes.

FMC–24

SYSTEM NAME:

Informal Inquiries and Complaints Files–FMC.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Consumer Affairs & Dispute Resolution Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals and regulated entities seeking Commission provided alternative dispute resolution services to resolve regulatory and commercial shipping disputes.

CATEGORIES OF RECORDS IN THE SYSTEM:

Copies of complaints and correspondence developed in their resolution complaint tracking logs; and complaint tracking electronic summary database.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Executive Order 12160, September 26, 1979.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

In addition to those disclosures generally permitted under 5 U.S.C. § 552a(b), the following may be disclosed as a ''routine use'' pursuant to 5 U.S.C. § 552a(b)(3):

1. Information may be disclosed to staff in various bureaus and offices to determine whether a complaint can be resolved.

2. Information may be disclosed to a business entity regulated by the Commission to determine whether a complaint can be resolved.

3. Information may be disclosed to another agency at the Federal, State, or local level to determine whether a complaint can be resolved.

4. Information may be disclosed to the Commission to provide information on developments or trends in the character of complaints which might suggest policy directions, proposed rules or programs.

5. Information may be disclosed to appropriate agencies entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Physical records are maintained in file folders. Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETRIEVABILITY:

Physical and electronic records are serially numbered and indexed by complainant and respondents.

SAFEGUARDS:

Physical records are maintained in an area of restricted accessibility. Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETENTION AND DISPOSAL:

Records are maintained by the Federal Maritime Commission for four years and then destroyed. The electronic summary database is permanently maintained.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Office of Consumer Affairs & Dispute Resolution Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Entities who have requested alternative dispute resolution services.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

FMC–25

SYSTEM NAME:

Inspector General File.

SYSTEM CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of the Inspector General, Federal Maritime Commission, 800 North Capitol Street NW. Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals and entities who are or have been the subjects of investigations conducted by the OIG, including present and former FMC employees; consultants, contractors, and subcontractors and their employees; and other individuals and entities doing business with the FMC.

CATEGORIES OF RECORDS IN THE SYSTEM:

A. *Investigative Case Files*

1. *Case Index*

Selected information from each case file indexed by case file number, and case Title which may include names of subjects of investigations.

2. *Hard Copy Files*

Case files developed during investigations of known or alleged fraud and abuse and irregularities and violations of laws and regulations. Cases relate to agency personnel and programs and operations administered by the agency, including contractors and others having a relationship with the agency. Files consist of investigative reports and related documents, such as correspondence, internal staff memoranda, copies of all subpoenas issued during the investigation, affidavits, statements from witnesses, transcripts of testimony taken in the investigation and accompanying exhibits, notes, attachments, and working papers. Files containing information or allegations which are of an investigative nature but do not relate to a specific investigation.

B. *Hotline Complaints*

1. *Hotline Index*

Selected information from each hotline complaint file indexed by hotline case number and Title which may include names of subject of hotline complaint.

2. *Hard Copy Files*

Information obtained from hotline complainants reporting indications of waste, fraud, and mismanagement. Specific information to include name and address of complainant, date complaint received, program area, nature and subject of complaint, and any additional contacts and specific information provided by the complainant. Information on OIG disposition.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

The Inspector General Act of 1978 (5 U.S.C. App. 3), as amended by Pub. L.

100–504; 44 U.S.C. 3101 et seq.; Commission Order No. 113.

PURPOSE(S):

The records maintained in the system are used by the OIG in furtherance of the responsibilities of the Inspector General, pursuant to the Inspector General Act of 1978, as amended, to conduct and supervise audits and investigations relating to programs and operations of the FMC; to promote economy, efficiency, and effectiveness in the administration of such programs and operations; and to prevent and detect fraud and abuse in such programs and operations.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

The records in the system may be used and disseminated to further the purposes described above. The following routine uses apply to the records maintained in this system:

1. A record may be disclosed to an individual, or to a Federal, State, local, or international agency when necessary to further the ends of a legitimate investigation or audit.

2. A record which indicates either by itself or in combination with other information within the agency's possession, a violation or potential violation of law, whether civil, criminal, or regulatory in nature, and whether arising by general statute or particular program statute, or by rule, regulation, or order issued pursuant thereto, or which indicates a violation or potential violation of a contract, may be disclosed to the appropriate agency, whether Federal, State, local or international, charged with the responsibility of investigating or prosecuting such violation, or of enforcing or implementing the statute, or rule, regulation, or order issued pursuant thereto, or of enforcing the contract.

3. A record may be disclosed to a Federal, State, local or international agency, in response to its request, in connection with the assignment, hiring, or retention of an individual, the issuance of a security clearance, the reporting of an investigation of an individual, the letting of a contract, or the issuance of a license, grant, or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision on the matter.

4. A record may be disclosed to a Member of Congress who submits an inquiry on behalf of an individual, when the Member of Congress informs the FMC that the individual to whom the record pertains has authorized the Member of Congress to have access to the record. In such cases, the Member of Congress has no more right to the record than does the individual.

5. A record may be disclosed to the Office of Government Ethics for any purpose consistent with that Office's mission, including the compilation of statistical data.

6. A record may be disclosed to the U.S. Department of Justice in order to obtain that Department's advice regarding an agency's disclosure obligation under the Freedom of Information Act.

7. A record may be disclosed to the Office of Management and Budget in order to obtain that Office's advice regarding an agency's obligations under the Privacy Act.

8. A record may be disclosed to a grand jury agent pursuant either to a Federal or State grand jury subpoena or to a prosecution request that such record be released for the purpose of its introduction to a grand jury.

9. A record may be disclosed to a ''consumer reporting agency'' as that term is defined in the Fair Credit Reporting Act and the Federal Claims Collection Act of 1966 in accordance with section 3711(f) of 31 U.S.C. and for the purposes of obtaining information in the course of an investigation or audit.

10. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

The investigative case index and the hotline case index are stored on a hard disk on a personal computer. The hard copy files are stored in file folders. All records are stored under secured conditions.

RETRIEVABILITY:

Records in the investigative and hotline case index are retrieved by case Title which may include the name of the subject of an investigation and by case number. Records in the hard copy files are retrieved by case numbers.

SAFEGUARDS:

Direct access is limited to authorized staff of the OIG. Additional access within FMC is limited to authorized officials on a need-to-know basis. All records, when not in a possession of an authorized individual are stored in locked cabinets or a locked, standalone, personal computer in a locked room.

RETENTION AND DISPOSAL:

1. Files containing information or allegations which are of an investigative nature but do not relate to a specific investigation are retained for seven years.

2. Other investigative case files are retained for ten years.

SYSTEM MANAGER(S) AND ADDRESS:

Inspector General, Office of the Inspector General, Federal Maritime Commission, Room 1072, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001. However, see Exemption section below.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations. However, see Exemption section below.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations. However, see Exemption section below.

RECORD SOURCE CATEGORIES:

Agency employees, reports and contracts from other agencies, and internal and external documents.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

All information about individuals that meets the criteria of 5 U.S.C. 552a(k)(5), regarding suitability, eligibility or qualifications for Federal civilian employment or for access to classified information, to the extent that disclosure would reveal the identity of a source who furnished information to the Commission under a promise of confidentiality is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is required to honor promises of confidentiality.

All information meeting the criteria of 5 U.S.C. 552a(j)(2) pertaining to the enforcement of criminal laws is exempt from the provisions of 5 U.S.C. 552a, except subsections (b), (c)(1) and (2), (e)(4)(A) through (F), (e)(6), (7), (9), (10), and (11), and (i). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

FMC–26

SYSTEM NAME:

Administrative Grievance File-FMC.

SYSTEM CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Any employee of the Federal Maritime Commission, including any former employee for whom a remedy can be provided.

CATEGORIES OF RECORDS IN THE SYSTEM:

Administrative Grievance Files contain all documents related to a particular grievance, including but not limited to any statements of witnesses, records or copies thereof, the report of the hearing when one is held, statements made by the parties to the grievance, and the decision.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 1302, 3301, 3302, 7301, E.O. 9830, 3 CFR 1943–1948 Comp., pp. 606–624; E.O. 11222, 3 CFR 2964–2969 Comp., p. 306.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

Information in this system of records is used or may be used:

1. By Commission officials designated as grievance examiners for the purpose of adjudication, by the Director of EEO in the event of an investigation when the EEO complaint relates to the grievance, or for information concerning the outcome of the grievance.
2. By the Office of Personnel Management in the course of an investigation of a particular employee of the Commission, for statistical analysis purposes, or for program compliance checks.
3. By the Merit Systems Protection Board if necessitated by an appeal.
4. By the appropriate District Court of the United States to render a decision when the Commission has refused to release a current or former employee's record under the Freedom of Information Act.
5. To refer, where there is an indication of a violation or potential violation of law, whether civil, criminal or regulatory in nature, information to the appropriate agency, whether Federal, State, or local, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, rules, regulation or order issued pursuant thereto.
6. To request from a Federal, State, or local agency maintaining civil, criminal, or other relevant enforcement information, data relevant to a Commission decision concerning the hiring or retention of an employee.
7. To provide or disclose information to a Federal agency in response to its request in connection with the hiring or retention of an employee, to the extent that the information is relevant and necessary to the requesting agency's decision on that matter.
8. By the employee or his/her designated representative in order to gather or provide information necessary to process the grievance.
9. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in file folders.

RETRIEVABILITY:

Records are indexed alphabetically by name.

SAFEGUARDS:

Records are stored in locked file cabinets.

RETENTION AND DISPOSAL:

In accordance with General Records Schedule 1, the Administrative Grievance File is destroyed 4 years after case is closed.

SYSTEM MANAGER(S) AND ADDRESS:

Director of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

Information is supplied by the individual to whom the record pertains

and/or by his or her representative, human resource specialists, grievance examiners, and any parties providing information bearing directly on the grievance.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

All information about individuals that meets the criteria of 5 U.S.C. 552a(k)(5), regarding suitability, eligibility or qualifications for Federal civilian employment or for access to classified information, to the extent that disclosure would reveal the identity of a source who furnished information to the Commission under a promise of confidentiality is exempt from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is required to honor promises of confidentiality.

FMC–28

SYSTEM NAME:

Equal Employment Opportunity Complaint Files-FMC.

SYSTEM LOCATION:

Office of General Counsel, Federal Maritime Commission, 800 N. Capitol Street NW., Washington, DC 20573–0001.

Note: This system of records is covered by the Equal Employment Opportunity Commission's Government-wide system notice, EEOC/GOVT–1.

FMC–29

SYSTEM NAME:

Employee Performance File System Records-FMC.

SYSTEM LOCATION:

Office of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system of records is covered by the Office of Personnel Management's Government-wide system notice, OPM/GOVT–2.

FMC–31

SYSTEM NAME:

Debt Collection Files.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Records are located in the Office of Budget and Finance, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals who are indebted to FMC.

CATEGORIES OF RECORDS IN THE SYSTEM:

The Debt Collection Officer's file will contain copies of debt collection letters, bills for collection, and correspondence to and from the debtor relating to the debt. The file will include such information as the name and address of the debtor, taxpayer's identification number (which may be the Social Security Number); amount of debt or delinquent amount; basis of debt; date debt arose; office/bureau referring debt to the Debt Collection Officer; record of each collection made; credit report; financial statement reflecting the net worth of the debtor; date by which debt must be referred to the Department of the Treasury for further collection action; and citation or basis on which debt was terminated or compromised.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

31 U.S.C. 3701 et seq., Debt Collection Act of 1982 (Pub. L. 97–365, 96 Stat. 1749) as amended by the Debt Collection Improvement Act of 1996 (Pub. L. 104–134, 101 Stat. 1321–358).

PURPOSE(S):

Information is used for the purpose of collecting monies owed FMC arising out of any administrative or program activities or services administered by FMC. The Debt Collection Officer's file represents the basis for the debt and amount of debt and actions taken by FMC to collect the monies owed under the debt. The credit report or financial statement provides an understanding of the individual's financial condition with respect to requests for deferment of payment.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

1. When debts are uncollectible, copies of the FMC Debt Collection Officer's file regarding the debt and actions taken to attempt to collect the monies are forwarded to the Department of Treasury for further collection action. FMC may also provide Treasury with copies of the debt collection letter, bill for collection, and FMC correspondence to the debtor.

2. Disclosure pursuant to 5 U.S.C. 552a(b)(12).

3. Disclosures may be made from this system to ''consumer reporting agencies'' as defined in the Fair Credit Reporting Act (15 U.S.C. 1681a(f) or the Federal Claims Collection Act of 1966 (31 U.S.C. 3701(a)(3)).

4. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Physical records are maintained in notebooks, file folders, and on lists and forms. Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS).

RETRIEVABILITY:

The system files are filed by bill for collection number, name, or taxpayer's identification number (which may be the Social Security Number).

SAFEGUARDS:

Physical records are maintained in locked containers and/or room in areas accessible only to authorized personnel. Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS). All records are maintained in areas that are secured by building guards during non-business hours.

RETENTION AND DISPOSAL:

In accordance with General Records Schedule 6, the records are maintained for 6 years and 3 months and then shredded.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Office of Budget and Finance, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573.

NOTIFICATION PROCEDURE:

Individuals wishing to inquire whether this system of records contains information about themselves should contact the system manager identified above. Written requests should be clearly marked ''Privacy Act Request'' on the envelope and letter. Requests should include full name of the individual, some type of appropriate personal identification, and current address.

For personal visits, the individuals should be able to provide some acceptable identification—that is, driver's license, employing organization identification card, or other picture identification card.

RECORD ACCESS PROCEDURES:

Same as Notification procedures above.

CONTESTING RECORD PROCEDURES:

Same as Notification procedures above. The letter should state clearly and concisely what information is being contested, the reason for contesting it, and the proposed amendment to the information sought.

FMC Privacy Act Regulations are promulgated in 46 CFR part 503.

RECORD SOURCE CATEGORIES:

Directly from the debtor, the initial application, credit report from the commercial credit bureau, administrative or program offices within FMC.

FMC–32

SYSTEM NAME:

Regulated Persons Index (''RPI'').

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Bureau of Certification and Licensing, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Records are maintained on persons, which may include passenger vessel operators, vessel-operating common carriers, marine terminal operators, sole proprietorships, association or agreement of persons, financial institutions, third party filers, practitioners before the Commission, ocean freight forwarders, non-vessel-operating common carriers, members of partnerships, and officers and owners of corporate licensees, managers/members and owners of limited liability companies, ex-licensees, and applicants for licenses.

CATEGORIES OF RECORDS IN THE SYSTEM:

The system contains names, addresses, phone/fax numbers of regulated entities and, where applicable, tax payer identification numbers (which may be Social Security Numbers), or names, addresses, and Social Security Numbers (or alternatively, driver's license numbers, passport, visa, or alien registration numbers) of the stockholders, officers, managers/members, and directors of individual ocean transportation intermediaries (OTIs); financial responsibility information including name of financial institutions, instrument identification numbers and amount of instruments; and, internal processing and licenses information pertinent to OTIs. Under the Shipping Act of 1984, OTIs may operate as an ocean freight forwarder, a non-vessel-operating common carrier, or both.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 553; secs. 3, 8, 10, 11, 13, 15, 17 and 19, Shipping Act of 1984 (recodified October 2006 as 46 U.S.C. 305, 40102, 40104, 40501–40503, 40901–40904, 41101–41109, 41302–41303, and 41305), 46 App. U.S.C. 1704 (recodified as 46 U.S.C. 40302–40303), 46 App. U.S.C. 1707 (recodified as 46 U.S.C. 40501–40503), 46 App. U.S.C. 817(d) and (e) (recodified 46 U.S.C. 44101–44106), 46 CFR 502.27, 46 CFR 520.3(d).

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

These records and information contained in these records may be disclosed as follows:

1. By the Commission staff for monitoring the activities of regulated entities to ensure they are in compliance with Commission regulations.

2. By Commission staff for evaluation of applicants for licensing and certificates.

3. To provide or update information maintained in the U.S. Customs and Border Protection's (CBP) Automated Commercial Environment/International Trade Data System (ACE/ITDS) to verify licensed or registered status of OTIs under the Trade Act of 2002 and related CBP requirements (or any other successor agency or organization) and to verify that passenger vessels with 50 or more passenger berths embarking passengers from U.S. ports have valid certificates.

4. Selected data reports containing names, addresses, phone/fax numbers are available to the public on the Commission's Web site while more detailed reports are available for a fee.

5. To appropriate agencies, entities, and persons when (a) the Federal Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Electronic records are maintained within the confines of FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETRIEVABILITY:

Records are indexed by name, organization number, or license number.

SAFEGUARDS:

Electronic records are secured in accordance with FMC–39, FMC General Support System (FMC GSS) and FMC–41, FMC SQL Database (FMCDB).

RETENTION AND DISPOSAL:

In accordance with the Federal Maritime Commission Records Disposition Schedule (Revised June 2010) data cutoff is at the end of the calendar year in which an entity ceases to exist or offer services regulated by the Commission, and are destroyed 25 years after the cutoff.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Bureau of Certification and Licensing, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Request may be in

person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefore, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

1. Information submitted by applicants, licensees, certificants, practitioners, third party filers, vessel-operating common carriers, marine terminal operators, financial entities including surety companies.
2. OTI license status information.
3. Information submitted by Commission Area Representatives.
4. Information obtained through Internet Web site searches and selected commercial and government database searches conducted by BCL staff in processing OTI and PVO applications (e.g., Accurint and Dun & Bradstreet).
5. Information submitted by the general public (e.g., through comments or complaints).
6. Information submitted by surety companies.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

All information that meets the criteria of 5 U.S.C. 552a(k)(2) regarding investigatory materials compiled for law enforcement purposes is exempted from the provisions of 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f). Exemption is appropriate to avoid compromise of ongoing investigations, disclosure of the identity of confidential sources and unwarranted invasions of personal privacy of third parties.

FMC–33

SYSTEM NAME:

Payroll/Personnel System.

SYSTEM CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Hard copies of personnel records and payroll transactions and reports are located at the Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001. Electronic data are located at the U.S. Department of Agriculture, National Finance Center, New Orleans, LA 70129. The electronic records are subject to the Office of Personnel Management's government-wide system notice, OPM/GOVT–1.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Current and former employees of the Federal Maritime Commission.

CATEGORIES OF RECORDS IN THE SYSTEM:

All official personnel actions and/or payroll transaction information on Commission employees.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 301, 2302(b)(20)(B), 2302(b)(10), 7311, 7313; Executive Order 10450; 5 CFR 731.103.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

In the event that a system of records maintained by this agency to carry out its functions indicates a violation or potential violation of law, whether civil, criminal or regulatory in nature, and whether arising by general statute or particular program state, or by regulation, rule or order issued pursuant thereto, the relevant records in the system of records may be referred, as a ''routine use,'' to the appropriate agency, whether Federal, State, local or foreign, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, or rule, regulation or order issued pursuant thereto.

A record from this system of records may be disclosed as a ''routine use'':

1. To a Federal, State or local agency maintaining civil, criminal or other relevant enforcement information or other pertinent information, such as current licenses, if necessary, to obtain information relevant to an agency decision concerning the hiring or retention of any employee, the issuance of a security clearance, the letting of a contract or the issuance of a license grant or other benefit.
2. To a Federal agency, in response to its request, in connection with the hiring or retention of an employee, the issuance of a security clearance, the reporting of an investigation of an employee, the letting of a contract, or the issuance of license, grant or other benefit by the requesting agency, to the extent that the information is relevant and necessary to the requesting agency's decision in the matter.
3. To the Office of Child Support Enforcement, Administration for Children and Families, Department of Health and Human Services Federal Parent Locator Service (FPLS) and Federal Tax Offset System for use in locating individuals and identifying their income sources to establish paternity, establish and modify orders of support and for enforcement action.
4. To the Office of Child Support Enforcement for release to the Social Security Administration for verifying Social Security Numbers in connection with the operation of the FPLS by the Office of Child Support Enforcement.
5. To the Office of Child Support Enforcement for release to the Department of Treasury for purposes of administering the Earned Income Tax Credit Program (Section 32, Internal Revenue Code of 1986) and verifying a claim with respect to employment in a tax return.
6. To an authorized appeal grievance examiner, formal complaints examiner, equal employment opportunity investigator, arbitrator or other duly authorized official engaged in investigation or settlement of a grievance, complaint, or appeal filed by an employee. A record from this system of records may be disclosed to the Office of Personnel Management in accordance with the agency's responsibility for evaluation and oversight of Federal personnel management.
7. To officers and employees of a Federal agency for purposes of audit.
8. To a Member of Congress or to a congressional staff member in response to an inquiry of the congressional office made at the request of the individual about whom the record is maintained.
9. To officers and employees of the National Finance Center in connection with administrative services provided to this agency under agreement with NFC.
10. To GAO for audit; to the Internal Revenue Service for investigation; and to private attorneys, pursuant to a power of attorney.
11. To the Merit Systems Protection Board, the Office of Special Counsel, the Equal Employment Opportunity Commission, or the Federal Labor Relations Authority, in connection with functions vested in those agencies.
12. To the Office of Management and Budget in connection with private relief legislation.
13. In litigation before a court or in an administrative proceeding being conducted by a Federal agency.
14. To the National Archives and Records Administration for records management inspections.
15. To Federal agencies as a data source for management information through the production of summary descriptive statistics and analytical studies in support of the functions for which the records are maintained for related studies.
16. To appropriate agencies, entities, and persons when (a) the Federal

Maritime Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the agency has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the agency or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the agency's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

A copy of an employee's Department of the Treasury Form W–2, Wage and Tax Statement, also is disclosed to the state, city, or other local jurisdiction which is authorized to tax the employee's compensation. The record will be provided in accordance with a withholding agreement between the state, city or other local jurisdiction and the Department of the Treasury pursuant to 5 U.S.C. 5516, 5517, and 5520, or, in the absence thereof, in response to a written request from an appropriate official of the taxing jurisdiction to the Secretary, Federal Maritime Commission, 800 North Capitol Street, NW., Washington, DC 20573–0001. The request must include a copy of the applicable statute or ordinance authorizing the taxation of compensation and should indicate whether the authority of the jurisdiction to tax the employee is based on place of residence, place of employment, or both. Pursuant to a withholding agreement between a city and the Department of the Treasury (5 U.S.C. 5520), copies of executed city tax withholding certificates shall be furnished to the city in response to written request from an appropriate city official to the Secretary at the above address.

In the absence of a withholding agreement, the Social Security Number will be furnished only to a taxing jurisdiction which has furnished this agency with evidence of its independent authority to compel disclosure of the Social Security Number, in accordance with section 7 of the Privacy Act, Pub. L. 93–579.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Paper records are stored in Official Personnel Folders and payroll files at the FMC. Electronic records reside at the National Finance Center.

RETRIEVABILITY:

Hard copy records are retrievable by name. Electronic data can be retrieved by Social Security Number.

SAFEGUARDS:

Electronic records are stored at the National Finance Center, which is located in a secured Federal complex with controlled access. Access to data is limited to those individuals to whom NFC has granted access/security. Output documents from the system are maintained as hard copy documents by the FMC's Office of Human Resources in secured cabinets located within a secured room.

RETENTION AND DISPOSAL:

Disposition of records shall be in accordance with General Records Schedule 2.

SYSTEM MANAGER(S) AND ADDRESS:

Director of Human Resources, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

NOTIFICATION PROCEDURE:

All inquiries regarding this system of records should be addressed to: Secretary, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

RECORD ACCESS PROCEDURES:

Requests for access to a record should be directed to the Secretary listed at the above address. Requests may be in person or by mail and shall meet the requirements set out in section 503.65 of Title 46 of the Code of Federal Regulations.

CONTESTING RECORD PROCEDURES:

An individual desiring to amend a record shall direct such a request to the Secretary at the above listed address. Such requests shall specify the desired amendments and the reasons therefor, and shall meet the requirements of section 503.66 of Title 46 of the Code of Federal Regulations.

RECORD SOURCE CATEGORIES:

The subject individual; the Commission.

FMC–34

SYSTEM NAME:

Travel Charge Card Program-FMC.

SYSTEM LOCATION:

Office of Budget and Finance, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the General Services Administration's government-wide system notice, GSA/GOVT–3.

FM–35

SYSTEM NAME:

Transit Benefits File-FMC.

SYSTEM LOCATION:

Office of Management Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the Department of Transportation's government-wide system notice, DOT/ALL–8.

FMC–36

SYSTEM NAME:

SmartPay Purchase Charge Card Program-FMC.

SYSTEM LOCATION:

Office of Management Services, Federal Maritime Commission, 800 North Capitol Street NW., Washington, DC 20573–0001.

This system is covered by the General Services Administration's government-wide system notice, GSA/GOVT–6.

By the Commission.

Karen V. Gregory,

Secretary.

[FR Doc. 2013–22072 Filed 9–10–13; 8:45 am]

BILLING CODE 6730–01–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 (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 notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. The notices also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of Governors. Comments must be received not later than September 25, 2013.

A. Federal Reserve Bank of New York (Ivan Hurwitz, Vice President) 33 Liberty Street, New York, New York 10045–0001:

1. *Donald J. Vaccaro,* Glastenbury, Connecticut; to acquire voting shares of Urban Financial Group, Inc., and thereby indirectly acquire voting shares of The Community's Bank, both in Bridgeport, Connecticut.

Board of Governors of the Federal Reserve System, September 5, 2013.

Margaret McCloskey Shanks,

Deputy Secretary of the Board.

[FR Doc. 2013–22047 Filed 9–10–13; 8:45 am]

BILLING CODE 6210–01–P

FEDERAL RESERVE SYSTEM

Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The applications will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than October 4, 2013.

A. Federal Reserve Bank of Kansas City (Dennis Denney, Assistant Vice President) 1 Memorial Drive, Kansas City, Missouri 64198–0001:

1. *Coffeyville Bancorp, Inc.,* Coffeyville, Kansas; to merge with Coffeyville Financial Corporation, Omaha, Nebraska, and thereby indirectly acquire 100 percent of the voting shares of Condon Bank & Trust, Coffeyville, Kansas.

Board of Governors of the Federal Reserve System, September 5, 2013.

Margaret McCloskey Shanks,

Deputy Secretary of the Board.

[FR Doc. 2013–22048 Filed 9–10–13; 8:45 am]

BILLING CODE 6210–01–P

FEDERAL TRADE COMMISSION

[File No. 122 3090]

TRENDnet, Inc.; Analysis of Proposed Consent Order To Aid Public Comment

AGENCY: Federal Trade Commission.

ACTION: Proposed Consent Agreement.

SUMMARY: The consent agreement in this matter settles alleged violations of federal law prohibiting unfair or deceptive acts or practices or unfair methods of competition. The attached Analysis to Aid Public Comment describes both the allegations in the draft complaint and the terms of the consent order—embodied in the consent agreement—that would settle these allegations.

DATES: Comments must be received on or before October 4, 2013.

ADDRESSES: Interested parties may file a comment at *https://ftcpublic.commentworks.com/ftc/trendnetconsent* online or on paper, by following the instructions in the Request for Comment part of the **SUPPLEMENTARY INFORMATION** section below. Write ''TRENDnet, File No. 122 3090'' on your comment and file your comment online at *https://ftcpublic.commentworks.com/ftc/trendnetconsent* by following the instructions on the web-based form. If you prefer to file your comment on paper, mail or deliver your comment to the following address: Federal Trade Commission, Office of the Secretary, Room H–113 (Annex D), 600 Pennsylvania Avenue NW., Washington, DC 20580.

FOR FURTHER INFORMATION CONTACT: Laura Berger (202–326–2471), FTC, Bureau of Consumer Protection, 600 Pennsylvania Avenue NW., Washington, DC 20580.

SUPPLEMENTARY INFORMATION: Pursuant to Section 6(f) of the Federal Trade Commission Act, 15 U.S.C. 46(f), and FTC Rule 2.34, 16 CFR 2.34, notice is hereby given that the above-captioned consent agreement containing a consent order to cease and desist, having been filed with and accepted, subject to final approval, by the Commission, has been placed on the public record for a period of thirty (30) days. The following Analysis to Aid Public Comment describes the terms of the consent agreement, and the allegations in the complaint. An electronic copy of the full text of the consent agreement package can be obtained from the FTC Home Page (for September 4, 2013), on the World Wide Web, at *http://www.ftc.gov/os/actions.shtm.* A paper copy can be obtained from the FTC Public Reference Room, Room 130–H, 600 Pennsylvania Avenue NW., Washington, DC 20580, either in person or by calling (202) 326–2222.

You can file a comment online or on paper. For the Commission to consider your comment, we must receive it on or before October 4, 2013. Write ''TRENDnet, File No. 122 3090'' on your comment. Your comment—including your name and your state—will be placed on the public record of this proceeding, including, to the extent practicable, on the public Commission Web site, at *http://www.ftc.gov/os/publiccomments.shtm.* As a matter of discretion, the Commission tries to remove individuals' home contact information from comments before placing them on the Commission Web site.

Because your comment will be made public, you are solely responsible for making sure that your comment does not include any sensitive personal information, like anyone's Social Security number, date of birth, driver's license number or other state identification number or foreign country equivalent, passport number, financial account number, or credit or debit card number. You are also solely responsible for making sure that your comment does not include any sensitive health information, like medical records or other individually identifiable health information. In addition, do not include any ''[t]rade secret or any commercial or financial information which . . . is privileged or confidential,'' as discussed in Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2). In particular, do not include competitively sensitive information such as costs, sales statistics, inventories, formulas, patterns, devices, manufacturing processes, or customer names.

If you want the Commission to give your comment confidential treatment, you must file it in paper form, with a request for confidential treatment, and you have to follow the procedure explained in FTC Rule 4.9(c), 16 CFR

4.9(c).[1] Your comment will be kept confidential only if the FTC General Counsel grants your request in accordance with the law and the public interest.

Postal mail addressed to the Commission is subject to delay due to heightened security screening. As a result, we encourage you to submit your comments online. To make sure that the Commission considers your online comment, you must file it at *https://ftcpublic.commentworks.com/ftc/trendnetconsent* by following the instructions on the web-based form. If this Notice appears at *http://www.regulations.gov/#!home* you also may file a comment through that Web site.

If you file your comment on paper, write ''TRENDnet, File No. 122 3090'' on your comment and on the envelope, and mail or deliver it to the following address: Federal Trade Commission, Office of the Secretary, Room H–113 (Annex D), 600 Pennsylvania Avenue NW., Washington, DC 20580. If possible, submit your paper comment to the Commission by courier or overnight service.

Visit the Commission Web site at *http://www.ftc.gov* to read this Notice and the news release describing it. The FTC Act and other laws that the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives on or before October 4, 2013. You can find more information, including routine uses permitted by the Privacy Act, in the Commission's privacy policy, at *http://www.ftc.gov/ftc/privacy.htm*.

Analysis of Agreement Containing Consent Order To Aid Public Comment

The Federal Trade Commission has accepted, subject to final approval, an agreement containing a consent order applicable to TRENDnet, Inc. (''TRENDnet'').

The proposed consent order has been placed on the public record for thirty (30) days for receipt of comments by interested persons. Comments received during this period will become part of the public record. After thirty (30) days, the Commission will again review the agreement and the comments received, and will decide whether it should withdraw from the agreement and take appropriate action or make final the agreement's proposed order.

TRENDnet is a California corporation that among other things, sells networking devices, such as routers, modems, and Internet Protocol (''IP'') security cameras that allow users to conduct remote surveillance of their homes and businesses via the Internet. In many instances, TRENDnet markets its IP cameras under the trade name ''SecurView,'' and tells consumers they may use the cameras to monitor ''babies at home, patients in the hospital, offices and banks, and more.'' By default, these IP cameras are subject to security settings, such as a requirement to enter a user name and password (''login credentials'') in order to access the live video and audio feeds (''live feeds'') over the Internet. On approximately January 10, 2012, a hacker discovered a flaw in the IP cameras that allowed access to these live feeds without entering login credentials, resulting in hundreds of previously private live feeds being made public.

The Commission's complaint alleges that TRENDnet violated Section 5(a) of the FTC Act by falsely representing that it had taken reasonable steps to ensure that its IP cameras and mobile apps are a secure means to monitor private areas of a consumer's home or workplace. The complaint also alleges that TRENDnet misrepresented that it had taken reasonable steps to ensure that a user's security settings on its devices would be honored. Finally, the Commission's complaint alleges that TRENDnet engaged in a number of practices that, taken together, failed to provide reasonable security to prevent unauthorized access to personal information, namely the live feeds from the IP cameras. Among other things, TRENDnet:

(1) Transmitted user login credentials in clear, readable text over the Internet, despite the existence of free code libraries (i.e., repositories of programming language that can be integrated by third parties), publicly available since at least 2008, that would have enabled respondent to secure such transmissions;

(2) stored user login credentials in clear, readable text on a user's mobile device, despite the existence of free software, publicly available since 2008, that would have enabled respondent to secure such stored credentials;

(3) failed to implement a process to actively monitor security vulnerability reports from third-party researchers, academics, or other members of the public, despite the existence of free tools to conduct such monitoring, thereby delaying the opportunity to correct discovered vulnerabilities or respond to incidents;

(4) failed to employ reasonable and appropriate security in the design and testing of the software that it provided consumers to install, operate, and access its IP cameras. Among other things, TRENDnet, either directly or through its service providers, failed to:

(a) Perform security review and testing of the software at key points, such as upon the release of the IP camera or upon the release of software to install, operate, or access the IP camera, including measures such as:

i. A security architecture review to evaluate the effectiveness of the software's security infrastructure;

ii. vulnerability and penetration testing of the software, such as by inputting invalid, unanticipated, or random data to the software;

iii. reasonable and appropriate code review and testing of the software to verify that access to data is restricted consistent with a user's privacy and security settings; and

(b) implement reasonable guidance or training for any employees responsible for the testing, designing, and reviewing the security of its IP cameras and related software.

The complaint further alleges that, due to these failures, TRENDnet subjected users to a significant risk that their live feeds would be compromised, thereby causing significant injury to consumers. Moreover, the complaint alleges that affected consumers include not only those consumers who maintained login credentials for their cameras, but also unwitting third parties who were present in locations under surveillance by the cameras. The exposure of personal information through TRENDnet's IP cameras increases the likelihood that consumers or their property will be targeted for theft or other criminal activity, increases the likelihood that consumers' personal activities or the activities of their young children or other family members will be observed and recorded by strangers over the Internet, impairs consumers' peaceful enjoyment of their homes, increases consumers' susceptibility to physical tracking or stalking, and reduces consumers' ability to control the dissemination of personal or proprietary information (e.g., intimate video and audio streams or images from business properties). Indeed, consumers had little, if any, reason to know that their information was at risk, particularly if those consumers maintained login credentials for their cameras or were merely unwitting third parties present in locations where the cameras were used.

[1] In particular, the written request for confidential treatment that accompanies the comment must include the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. *See* FTC Rule 4.9(c), 16 CFR 4.9(c).

The proposed order contains provisions designed to prevent TRENDnet from engaging in the future in practices similar to those alleged in the complaint.

Part I of the proposed order prohibits TRENDnet from misrepresenting (1) the extent to which TRENDnet or its products or services maintain and protect the security of covered device functionality or the security, privacy, confidentiality, or integrity of any covered information; and (2) the extent to which a consumer can control the security of any covered information input into, stored on, captured with, accessed, or transmitted by a covered device.

Part II of the proposed order requires TRENDnet to establish and implement, and thereafter maintain, a comprehensive security program to (1) address security risks that could result in unauthorized access to or use of the functions of covered devices, and (2) protect the security, confidentiality, and integrity of covered information, whether collected by respondent or input into, stored on, captured with, accessed or transmitted through a covered device. The security program must contain administrative, technical, and physical safeguards appropriate to TRENDnet's size and complexity, nature and scope of its activities, and the sensitivity of the information collected from or about consumers. Specifically, the proposed order requires TRENDnet to:

(1) Designate an employee or employees to coordinate and be accountable for the security program;

(2) identify material internal and external risks to the security of covered devices that could result in unauthorized access to or use of covered device functionality, and assess the sufficiency of any safeguards in place to control these risks;

(3) identify material internal and external risks to the security, confidentiality, and integrity of covered information that could result in the unauthorized disclosure, misuse, loss, alteration, destruction, or other compromise of such information, whether such information is in TRENDnet's possession or is input into, stored on, captured with, accessed, or transmitted through a covered device, and assess the sufficiency of any safeguards in place to control these risks;

(4) consider risks in each area of relevant operation, including but not limited to (a) employee training and management; (b) product design, development and research; (c) secure software design, development, and testing; and (d) review, assessment, and response to third-party security vulnerability reports;

(5) design and implement reasonable safeguards to control the risks identified through risk assessments, including but not limited to reasonable and appropriate software security testing techniques, such as: (a) Vulnerability and penetration testing; (b) security architecture reviews; (c) code reviews; and (d) other reasonable and appropriate assessments, audits, reviews, or other tests to identify potential security failures and verify that access to covered information is restricted consistent with a user's security settings;

(6) regularly test or monitor the effectiveness of the safeguards' key controls, systems, and procedures;

(7) develop and use reasonable steps to select and retain service providers capable of maintaining security practices consistent with the order, and require service providers by contract to establish and implement, and thereafter maintain, appropriate safeguards; and

(8) evaluate and adjust its information security program in light of the results of testing and monitoring, any material changes to TRENDnet's operations or business arrangement, or any other circumstances that it knows or has reason to know may have a material impact on its security program.

Part III of the proposed order requires TRENDnet to obtain, within the first one hundred eighty (180) days after service of the order and on a biennial basis thereafter for a period of twenty (20) years, an assessment and report from a qualified, objective, independent third-party professional, certifying, among other things, that: (1) It has in place a security program that provides protections that meet or exceed the protections required by Part II of the proposed order; and (2) its security program is operating with sufficient effectiveness to provide reasonable assurance that the security of covered device functionality and the security, confidentiality, and integrity of covered information is protected.

Part IV of the proposed order requires TRENDnet to notify consumers whose cameras were affected by the breach that their IP cameras had a flaw that allowed third parties to access their live feeds without inputting login credentials; and provide instructions to such consumers on how to remove this flaw. In addition, TRENDnet must provide prompt and free support with clear and prominent contact information to help consumers update and/or uninstall their IP cameras. TRENDnet must provide this support via a toll-free, telephonic number and via electronic mail for two (2) years.

Parts V through IX of the proposed order are reporting and compliance provisions. Part V requires TRENDnet to retain documents relating to its compliance with the order for a five-year period. Part VI requires dissemination of the order now and in the future to all current and future principals, officers, directors, and managers, and to persons with responsibilities relating to the subject matter of the order. Part VII ensures notification to the FTC of changes in corporate status. Part VIII mandates that TRENDnet submit a compliance report to the FTC within 60 days, and periodically thereafter as requested. Part IX is a provision ''sunsetting'' the order after twenty (20) years, with certain exceptions.

The purpose of this analysis is to facilitate public comment on the proposed order. It is not intended to constitute an official interpretation of the proposed complaint or order or to modify the order's terms in any way.

By direction of the Commission.

Richard C. Donohue,

Acting Secretary.

[FR Doc. 2013–22070 Filed 9–10–13; 8:45 am]

BILLING CODE 6750–01–P

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[OMB Control No. 9000–0174; Docket 2012–0076; Sequence 64]

Submission for OMB Review; Information Regarding Responsibility Matters

AGENCY: Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

ACTION: Notice of request for public comments regarding an extension, with changes, to an existing OMB information clearance.

SUMMARY: Under the provisions of the Paperwork Reduction Act, the Regulatory Secretariat will be submitting to the Office of Management and Budget (OMB) a request to review and approve an extension of a previously approved information collection requirement regarding Information Regarding Responsibility Matters. A notice was published in the

Federal Register at 78 FR 18593, on March 27, 2013. One comment was received.

DATES: Submit comments on or before October 11, 2013.

ADDRESSES: Submit comments identified by Information Collection 9000–0174, Information Regarding Responsibility Matters, by any of the following methods:

- *Regulations.gov: http://www.regulations.gov.* Submit comments via the Federal eRulemaking portal by searching the OMB control number. Select the link ''Submit a Comment'' that corresponds with ''Information Collection 9000–0174, Information Regarding Responsibility Matters''. Follow the instructions provided at the ''Submit a Comment'' screen. Please include your name, company name (if any), and ''Information Collection 9000–0174, Information Regarding Responsibility Matters'' on your attached document.
- *Fax:* 202–501–4067.
- *Mail:* General Services Administration, Regulatory Secretariat (MVCB), 1800 F Street NW., 2nd Floor, Washington, DC 20405–0001. ATTN: Hada Flowers/IC 9000–0174, Information Regarding Responsibility Matters.

Instructions: Please submit comments only and cite Information Collection 9000–0174, Information Regarding Responsibility Matters, in all correspondence related to this collection. Submit comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: FAR Desk Officer, OMB, Room 10102, NEOB, Washington, DC 20503. All comments received will be posted without change to *http://www.regulations.gov,* including any personal and/or business confidential information provided.

FOR FURTHER INFORMATION CONTACT: Ms. Cecelia L. Davis, Procurement Analyst, Office of Governmentwide Acquisition Policy, at (202) 219–0202 or *Cecelia.davis@gsa.gov.*

SUPPLEMENTARY INFORMATION:

A. Purpose

This information collection is necessary to: (a) Determine the responsibility of prospective contractors; and (b) ensure that contractors maintain for accuracy and completeness, their integrity and performance information upon which responsibility determinations rely.

Section 872 of the Duncan Hunter National Defense Authorization Act of 2009 (Pub. L. 110–417), enacted on October 14, 2008, required the development and maintenance of an information system that contains specific information on the integrity and performance of covered Federal agency contractors and grantees. The Federal Awardee Performance and Integrity Information System (FAPIIS) was developed to address these requirements. FAPIIS provides users access to integrity and performance information from the FAPIIS reporting module in the Contractor Performance Assessment Reporting System (CPARS), as well as proceedings information and suspension/debarment information from the Central Contractor Registration (CCR) and the Excluded Parties List System (EPLS) functions in the System for Award Management (SAM).

The provision at FAR 52.209–7 requires that for each solicitation where the resultant contract value is expected to exceed $500,000, the offeror responds in paragraph (b) as to whether or not it has active Federal contracts and grants that total greater than $10,000,000. Only if the offeror responds affirmatively is there any further FAPIIS-related information collection requirement.

The clause at FAR 52.209–9 applies to solicitations where the resultant contract value is expected to exceed $500,000 and to contracts in which the contractor indicated in paragraph (b) of the provision at 52.209–7 that it has current active Federal contracts and grants with total values greater than $10,000,000. Paragraph (a) of the clause at 52.209–9 requires the contractor to update responsibility information on a semiannual basis, throughout the life of the contract, by posting the information in the System for Award Management (SAM).

B. Discussion and Analysis

1. The Analysis of the Public Comment Is Summarized as Follows

a. Necessity of the Information Collection Requirement

Comment: According to the respondent, agencies should be seeking to create savings by reducing or eliminating such information collection requirements. However, the respondent did not challenge the propriety of this underlying information collection requirement.

Response: The provision at FAR 52.209–7 requires that for each solicitation where the resultant contract value is expected to exceed $500,000, the offeror responds in paragraph (b) as to whether it has, or has not, active Federal contracts and grants that total greater than $10,000,000. Only if the offeror responds affirmatively is there any further FAPIIS-related information collection requirement. The clause at FAR 52.209–9 applies to solicitations where the resultant contract value is expected to exceed $500,000 and to contracts in which the offeror has indicated in paragraph (b) of the provision at 52.209–7 that it has current active Federal contracts and grants with total values greater than $10,000,000. Paragraph (a) of the clause at 52.209–9 requires the contractor to update responsibility information on a semiannual basis, throughout the life of the contract, by posting the information in the CCR. These requirements are necessary. There are no aspects of this requirement that can be reduced or eliminated without negatively impacting the ability of the Government to assess contractor responsibility, investigate and address potential criminal actions, and protect the Government's interests in maintaining the integrity of the acquisition process.

b. OMB Approval To Extend the Approval of This Information Collection Requirement.

Comment: The respondent commented that the extension of the information collection would violate the fundamental purposes of the Paperwork Reduction Act because the analysis significantly underestimates the paperwork burden imposed by this requirement and has therefore not provided sufficient justification for the requested extension. The respondent further stated that the agency and OMB should assess the need to extend this information collection requirement in the context of assessing the total information collection burden. The respondent further commented that the ''collective burden of compliance'' required of the Government acquisition community annually totals over 30 million hours. According to the respondent, the collective burden greatly exceeds the agency's estimates and outweighs any potential utility of the extension.

Response: The criteria for extension of an information collection requirement must be based primarily on the need and use for the required information. It is essential for contractors to report responsibility requirements, regardless the number of responses. If the agencies have determined that the information is essential to protect the interests of the Government, then the extension should be approved.

c. Accuracy of Data Estimates

Comment: The respondent commented that the agency did not accurately estimate the public burden,

challenging that the agency's methodology for calculating the burden is insufficient and inadequate and does not reflect the total burden. The respondent stated that—

• With regard to the number of unique vendors with contracts valued over $500,000 and the number of proposals received per solicitation, FPDS data was used and the respondent considers the estimate of .1 hours per initial response to be reasonable.

• However, the respondent is unclear as to why the Agencies abandoned this approach when estimating the number of unique vendors with total current, active Federal contracts and grants with total values greater than $10,000,000. If actual data is unavailable, the Agencies are required to do more than just declare, ''It is estimated.'' The total burden hour estimates for the latter information collection requirement (506,313 hours) seems reasonable, but as the agencies have not provided a ''specific, objectively supported estimate of burden'' or clear explanation of its methodology, the exact burden estimate is unclear and the allocation is confusing. According to the notice's text, ''[The Agencies] have used an average burden estimate of 100 hours to enter the company's data into the Web site. This time estimate also includes the average annual recordkeeping time necessary per respondent to maintain the company's information internally.'' However, the table then contradicts the text by assigning the 100 hours to the ''recordkeeping burden'' and then recognizing that entering the data will also take additional time, especially as the data must be entered into the new System Awards Management (SAM) system. According to the respondent, any change within SAM requires at least one hour of time: Even one update will force the respondent to confirm the accuracy of every page, i.e. scroll down to the bottom and agree to every screen.

Response: The respondent found the overall burden estimate to be reasonable. However, based on Fiscal Year (FY) 2012 data, and in consultation with subject matter experts, the Councils have increased the burden hours for the initial input of data into SAM (.5 hours to 1 hour), and separated out the data to be input under the provision 52.209–7 from the subsequent 6-month updates under 52.209–9 and the required recordkeeping hours. This re-evaluation resulted in a slight adjustment from the data previously published in the **Federal Register** at 78 FR 18593, on March 27, 2013.

The Councils take this process seriously. In this particular instance, the burden was prepared using the burden hour's method taking into consideration the time, effort and financial resources put on the entity submitting the information. This includes reviewing instructions; using technology to collect, process, and disclose information; adjusting existing practices to comply with requirements; searching data sources; completing and reviewing the response; and transmitting or disclosing information. The estimated hours must also be viewed as an average between the hours that a simple disclosure by a very small business might require and the much higher numbers that might be required for a very complex disclosure by a major corporation. Also, it must be noted that the burden includes estimated hours only for those actions which a company would not undertake in the normal course of business.

d. Timing of Request for Extension

Comment: The respondent noted that this information collection is soliciting comments during an emergency extension period OMB granted in March 2013. The respondent reiterated OMB's comment that the agencies should have in place an internal planning process so that completion of the public notification and comment period required by 5 CFR 1320 occurs prior to an information collection's expiration date. Regular order allows the agencies and the public to have a meaningful and on-the-record dialogue on information collection extensions.

Response: There are over 100 information collection requirements that require periodic renewal, of which more than half expired in FY 2013. Although ideally it is preferable to complete the renewal process prior to expiration, an emergency extension may be necessary in order to allow the public the opportunity for input into the process.

e. The Collective Burden of Compliance

Comment: The respondent objects to the overall collective burden imposed by the Government on all respondents.

Response: The Councils cannot effectively address the broad allegations with regard to the accuracy and utility of the entire collective burden imposed on all Federal acquisitions. The Councils can only effectively address each individual information collection requirement that is under consideration for OMB approval. The Councils constantly review information collection requirements imposed by FAR regulations for ways to reduce the burdens and still achieve the objectives of the regulations, whether based on policy or statute.

2. Annual Reporting Burden

This information collection reflects a slight adjustment from what was published in the **Federal Register** at 78 FR 18593, on March 27, 2013, for the number of respondents required to comply with the requirements of FAR 52.209–7 and FAR 52.209–9. This change is primarily due to a re-evaluation based on consultations with subject matter experts and updated data retrieved from the Federal Procurement Data System (FPDS).

For FAR 52.209–7, FY 2012 FPDS indicates that there were 26,327 contract awards. The Government estimates that there was an average of 3 responses per solicitation, resulting in approximately 79,000 offers (26,327 × 3, rounded). Of the approximate 79,000 offers, the Government estimates that an average of five responses annually will be received by 15,800 unique vendors (79,000/5). Consequently, it was determined that the FY 2012 FPDS data was a sufficient baseline for estimating the number of respondents. It is therefore estimated that approximately 15,800 respondents, 1,090 of which will not receive an award (15,800 − 14,710), would need to comply with the applicable provision for this information collection. The Government further estimates that one third of the unique vendors (5,250) submitting offers may answer the first question affirmatively, and then will have to enter data into the FAPIIS.

For FAR 52.209–9, FY 2012 FPDS indicates that there were 26,327 contract awards to 14,710 unique vendors. Approximately one-third (4,900) of those unique vendors may answer the first question (from FAR 52.209–7) affirmatively. Consequently, it was determined that for FAR 52.209–9, the FY 2012 FPDS data was a sufficient baseline for estimating the number of respondents per year (4,900) that would need to comply with FAR 52.209–9.

The estimate number of responses per respondent is based on an estimated average of the total number of responses for FAR 52.209–7 and FAR 52.209–9 divided by the estimated number of respondents. In discussions with subject matter experts, it was determined that an estimated number of responses per respondent of 5.95 was sufficient for this information collection.

a. FAR 52.209–7:

(i) Initial Response:

Estimated number of respondents:	15,800
Est. number of responses per respondent per year:	× 5
Total annual responses (rounded):	79,000
Estimated hours per response:	0.1
Total response burden hours:	7,900

(ii) Additional Response:

Estimated number of respondents:	5,250
Est. number of responses per respondent per year:	× 1
Estimated number of responses:	5,250
Estimated hours per response:	× 1
Estimated response burden hours:	5,250
Total response burden hours for FAR 52.209–7:	13,150

b. FAR 52.209–9:

Estimated number of respondents:	4,900
Est. number of responses per respondent per year:	× 2
Total annual responses (rounded):	9,800
Estimated hours per response:	0.5
Total response burden hours for FAR 52.209–9:	4,900

c. Total (a. + b.):

Total number of respondents:	15,800
Responses per respondent:	× 5.95
Total responses:	94,050
Hours per response:	.19
Total response burden hours:	18,050

3. Annual Recordkeeping Burden

Number of recordkeepers:	5,250
Hours per recordkeeper:	× 100
Total recordkeeping burden hours:	525,000

C. Public Comments

Public comments are particularly invited on: Whether this collection of information is necessary for the proper performance of functions of the FAR, and whether it will have practical utility; whether our estimate of the public burden of this collection of information is accurate, and based on valid assumptions and methodology; ways to enhance the quality, utility, and clarity of the information to be collected; and ways in which we can minimize the burden of the collection of information on those who are to respond, through the use of appropriate technological collection techniques or other forms of information technology.

Obtaining Copies of Proposals: Requesters may obtain a copy of the information collection documents from the General Services Administration, Regulatory Secretariat (MVCB), 1800 F Street NW., 2nd Floor, Washington, DC 20405–0001, telephone (202) 501–4755. Please cite OMB Control No. 9000–0174, Information Regarding Responsibility Matters, in all correspondence.

Dated: September 5, 2013.

Karlos Morgan,

Acting Director, Federal Acquisition Policy Division, Office of Governmentwide Acquisition Policy, Office of Acquisition Policy, Office of Governmentwide Policy.

[FR Doc. 2013–22016 Filed 9–10–13; 8:45 am]

BILLING CODE 6820–EP–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day–13–0215]

Agency Forms Undergoing Paperwork Act Review

The Centers for Disease Control and Prevention (CDC) publishes a list of information collection requests under review by the Office of Management and Budget (OMB) in compliance with the Paperwork Reduction Act (44 U.S.C. Chapter 35). To request a copy of these requests, call (404) 639–7570 or send an email to *omb@cdc.gov.* Send written comments to CDC Desk Officer, Office of Management and Budget, Washington, DC or by fax to (202) 395–5806. Written comments should be received within 30 days of this notice.

Proposed Project

Application form and related forms for the operation of the National Death Index (NDI), (OMB No. 0920–0215, Expiration 11/30/13)—Extension—National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

The purpose of this request is to obtain OMB approval to extend the data collection for Application form and related forms for the operation of the National Death Index (NDI), OMB No. 0920–0215, expires 11/30/2013. Section 306 of the Public Health Service Act (42 U.S.C.), as amended, authorizes that the Secretary of Health and Human Services, acting through NCHS, shall collect statistics on the extent and nature of illness and disability of the population of the United States.

The NDI is a national data base containing identifying death record information submitted annually to NCHS by all the state vital statistics offices, beginning with deaths in 1979. This request is for approval of forms used to request searches against the NDI file to obtain the states and dates of death and the death certificate numbers of deceased study subjects. The NDI Application Form is provided to all investigators who express an interest in the NDI. The Application Form is completed and submitted only by those investigators who actually decide to apply for use of the NDI services. The Request for a Repeat NDI File Search is used by those NDI users who already have an approved application on file. This form is used by researchers when they have additional study subjects that need to be identified as deceased. The final form used is the User Data Transmittal Format. The researcher uses this from when transmitting their data file to the NDI staff.

Using the NDI Plus service, researchers have the option of also receiving cause of death information for deceased subjects, thus reducing the need to request copies of death certificates from the states. The NDI Plus option currently provides the International Classification of Disease (ICD) codes for the underlying and multiple causes of death for the years 1979–2010. Health researchers must complete administrative forms in order to apply for NDI services, and submit records of study subjects for computer matching against the NDI file. A three-year clearance is requested. There is no cost to respondents except for their time. The total estimated annual burden hours are 182.

TABLE 1—ESTIMATED ANNUALIZED BURDEN TABLE

Type of respondent	Form type	Number of respondents	Number of responses/respondent	Average burden/response (in hours)
Health Researcher/Investigator	Application Form	50	1	2.5
Health Researcher/Investigator	Repeat Request Form	70	1	18/60
Health Researcher/Investigator	Data Transmittal Form	120	1	18/60

LeRoy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Center for Disease Control and Prevention.

[FR Doc. 2013–22038 Filed 9–10–13; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0557]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Postmarket Surveillance

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by October 11, 2013.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: FDA Desk Officer, FAX: 202–395–7285, or emailed to *oira_submission@omb.eop.gov*. All comments should be identified with the OMB control number 0910–0449. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: FDA PRA Staff, Office of Operations, Food and Drug Administration, 1350 Piccard Dr., PI50–400B, Rockville, MD 20850, *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.

Postmarket Surveillance—21 CFR Part 822 (OMB Control Number 0910–0449)—Extension

Section 522 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360*l*) authorizes FDA to require a manufacturer to conduct postmarket surveillance (PS) of any device that meets the criteria set forth in the statute. The PS regulation establishes procedures that FDA uses to approve and disapprove PS plans. The regulation provides instructions to manufacturers so they know what information is required in a PS plan submission. FDA reviews PS plan submissions in accordance with part 822 (21 CFR part 822) in §§ 822.15 through 822.19 of the regulation, which describe the grounds for approving or disapproving a PS plan. In addition, the PS regulation provides instructions to manufacturers to submit interim and final reports in accordance with § 822.38. Respondents to this collection of information are those manufacturers who require postmarket surveillance of their products.

In the **Federal Register** of May 16, 2013 (78 FR 28853), FDA published a 60-day notice requesting public comment on the proposed collection of information. No comments were received.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]

Activity/21 CFR section	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
Postmarket surveillance submission (§§ 822.9 and 822.10)	131	1	131	120	15,720
Changes to PS plan after approval (§ 822.21)	15	1	15	40	600
Changes to PS plan for a device that is no longer marketed (§ 822.28)	80	1	80	8	640
Waiver (§ 822.29)	1	1	1	40	40
Exemption request (§ 822.30)	16	1	16	40	640
Periodic reports (§ 822.38)	131	3	393	40	15,720
Total					33,360

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Explanation of Reporting Burden Estimate. The burden captured in table 1 of this document is based on the data available in FDA's internal tracking system. Sections 822.26, 822.27, and 822.34 do not constitute information collection subject to review under the PRA because ''it entails no burden other than that necessary to identify the respondent, the date, the respondent's address, and the nature of the instrument.'' (See 5 CFR 1320.3(h)(1).)

TABLE 2—ESTIMATED ANNUAL RECORDKEEPING BURDEN [1]

Activity/21 CFR section	Number of recordkeepers	Number of records per recordkeeper	Total annual records	Average burden per recordkeeping	Total hours
Manufacturer records (§ 822.31)	131	1	131	20	2,620
Investigator records (§ 822.32)	393	1	393	5	1,965
Total					4,585

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Explanation of Recordkeeping Burden Estimate. FDA expects that at least some of the manufacturers will be able to satisfy the PS requirement using information or data they already have. For purposes of calculating burden, however, FDA has assumed that each PS order can only be satisfied by a 3-year clinically based surveillance plan, using three investigators. These estimates are based on FDA's knowledge and experience with postmarket surveillance.

Dated: September 5, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22013 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013-N–1089]

Agency Information Collection Activities; Proposed Collection; Comment Request; Recommended Glossary and Educational Outreach To Support Use of Symbols on Labels and in Labeling of In Vitro Diagnostic Devices Intended for Professional Use

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the Agency. Under the Paperwork Reduction Act of 1995 (the PRA), Federal Agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on the reporting requirements for the collection ''Recommended Glossary and Educational Outreach to Support Use of Symbols on Labels and in Labeling of In Vitro Diagnostic Devices Intended for Professional Use.''

DATES: Submit either electronic or written comments on the collection of information by November 12, 2013.

ADDRESSES: Submit electronic comments on the collection of information to *http://www.regulations.gov.* Submit written comments on the collection of information to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: FDA PRA Staff, Office of Operations, Food and Drug Administration, 1350 Piccard Dr., PI50–400B, Rockville, MD 20850, *PRAStaff@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501–3520), Federal Agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. ''Collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes Agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) 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, FDA is publishing notice of the proposed collection of information set forth in this document.

With respect to the following collection of information, FDA invites comments on these topics: (1) Whether the proposed collection of information is necessary for the proper performance of FDA's functions, including whether the information will have practical utility; (2) the accuracy of FDA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

Recommended Glossary and Educational Outreach to Support Use of Symbols on Labels and in Labeling of In Vitro Diagnostic Devices Intended for Professional Use—(OMB Control Number 0910–0553)—Extension

Section 502 of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 352), among other things, establishes requirements for the label or labeling of a medical device so that it is not misbranded. Section 351 of the Public Health Service Act (the PHS Act) (42 U.S.C. 262) establishes requirements that manufacturers of biological products must submit a license application for FDA review and approval prior to marketing a biological product for introduction into interstate commerce.

In the **Federal Register** of November 30, 2004 (69 FR 69606), FDA published a notice of availability of the guidance entitled ''Use of Symbols on Labels and in Labeling of In Vitro Diagnostic Devices Intended for Professional Use.'' The guidance document provides guidance for the voluntary use of selected symbols in place of text in labeling. It provides the labeling guidance required for: (1) In vitro diagnostic devices (IVDs), intended for professional use under 21 CFR 809.10, FDA's labeling requirements for IVDs; and (2) FDA's labeling requirements for biologics, including IVDs under 21 CFR parts 610 and 660. Under section 502(c) of the FD&C Act, a drug or device is misbranded, ''. . . If any word, statement, or other information required by or under authority of this Act to appear on the label or labeling is not prominently placed thereon with such conspicuousness (as compared with other words, statements, designs, or devices, in the labeling) and in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.''

The guidance document recommends that a glossary of terms accompany each IVD to define the symbols used on that device's labels and/or labeling. Furthermore, the guidance recommends an educational outreach effort to enhance the understanding of newly introduced symbols. Both the glossary and educational outreach information help to ensure that IVD users have enough general familiarity with the symbols used, as well as provide a quick reference for available materials, thereby further ensuring that such labeling satisfies the labeling requirements under section 502(c) of the FD&C Act and section 351 of the PHS Act.

The likely respondents for this collection of information are IVD manufacturers who plan to use the selected symbols in place of text on the labels and/or labeling of their IVDs.

The glossary activity is inclusive of both domestic and foreign IVD manufacturers. FDA receives submissions from approximately 689 IVD manufacturers annually. The 4-hour estimate for a glossary is based on the average time necessary for a manufacturer to modify the glossary for the specific symbols used in labels or labeling for the IVDs manufactured.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL THIRD-PARTY DISCLOSURE BURDEN

Activity	Number of respondents	Number of disclosures per respondent	Total annual disclosures	Average burden per disclosure	Total hours
Glossary	689	1	689	4	2,756

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: September 6, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22110 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0717]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Evaluation of the Food and Drug Administration's General Market Youth Tobacco Prevention Campaigns

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by October 11, 2013.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: FDA Desk Officer, FAX: 202–395–7285, or emailed to *oira_submission@omb.eop.gov.* All comments should be identified with the OMB control number 0910–New and title ''Evaluation of FDA's General Market Youth Tobacco Prevention Campaigns''. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: FDA PRA Staff, Office of Operations, Food and Drug Administration, 1350 Piccard Dr., PI50–400B, Rockville, MD 20850, *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.

Evaluation of FDA's General Market Youth Tobacco Prevention Campaigns—(OMB Control Number 0910–New)

The 2009 Family Smoking Prevention and Tobacco Control Act (Tobacco Control Act) (Pub. L. 111–31) amends the Federal Food, Drug, and Cosmetic Act (the FD&C Act) to grant FDA authority to regulate the manufacture, marketing, and distribution of tobacco products to protect public health and to reduce tobacco use by minors. Section 1003(d)(2)(D) of the FD&C Act (21 U.S.C. 393(d)(2)(D)) supports the development and implementation of FDA public education campaigns related to tobacco use. Accordingly, FDA is currently developing and implementing youth-targeted public education campaigns to help prevent tobacco use among youth and thereby reduce the public health burden of tobacco. The campaigns will feature televised advertisements along with complementary ads on radio, on the Internet, in print, and through other forms of media.

In support of the provisions of the Tobacco Control Act that require FDA to protect the public health and to reduce tobacco use by minors, FDA requests OMB approval to collect information needed to evaluate FDA's general market youth tobacco prevention campaigns. Comprehensive evaluation of FDA's public education campaigns is needed to ensure campaign messages are effectively received, understood, and accepted by those for whom they are intended. Evaluation is an essential organizational practice in public health and a systematic way to account for and improve public health actions.

FDA plans to conduct two studies to evaluate the effectiveness of its youth tobacco prevention campaigns: (1) An outcome evaluation study consisting of a youth experimenter and non-trier initiative and a male only youth rural smokeless initiative and (2) a media tracking survey. The timing of these studies will be designed to follow the multiple, discrete waves of media advertising planned for the campaigns.

- *Outcome Evaluation Study.* The outcome evaluation study consists of an initial baseline survey of youth aged 11 to 16 before the campaigns launch. The baseline will be followed by three longitudinal followup surveys of the same youth, aged 11 to 16, at approximate 8-month intervals after the campaigns launch. As the cohort will be aging over this time period, the data collected throughout the study will reflect information from youth aged 11 to 18. Information will be collected about youth awareness of and exposure to campaign advertisements and about youth knowledge, attitudes, and beliefs related to tobacco use. In addition, the surveys will measure tobacco use susceptibility and current use. Information will also be collected on demographic variables including age, sex, race/ethnicity, grade level, and primary language. Finally, a baseline survey will also be conducted with the parent or legal guardian of each youth baseline survey participant in order to collect data on household characteristics and media use.

- *Media Tracking Survey.* The media tracking survey consists of assessments of youth aged 13 to 17 conducted at 4 months, 12 months, and 20 months post launch. The tracking survey will assess awareness of the campaigns and receptivity to campaign messages. These data will provide critical evaluation feedback to the campaigns and will be conducted with sufficient frequency to match the cyclical patterns of media advertising and variation in exposure to allow for mid-campaign refinements.

All information will be collected through in-person and Web-based questionnaires. Youth respondents will be recruited from two sources: (1) A probability sample drawn from 90 U.S. media markets gathered using an address-based postal mail sampling of U.S. households for the outcome evaluation study and (2) an Internet

panel for the media tracking survey. Participation in the studies is voluntary.

The information collected is necessary to inform FDA's efforts and measure the effectiveness and public health impact of the campaigns. Data from the media tracking survey will be used to estimate awareness of and exposure to the campaigns among youth nationally as well as among youth in geographic areas targeted by the campaign. Data from the outcome evaluation study will be used to examine statistical associations between exposure to the campaigns and subsequent changes in specific outcomes of interest, which will include knowledge, attitudes, beliefs, and intentions related to tobacco use, as well as behavioral outcomes including tobacco use.

FDA's burden estimate is based on prior experience with in-person and Internet panel studies similar to the Agency's plan presented in this document. To obtain the target number of completed surveys (''completes'') for the outcome evaluation study, 40,238 youth respondents and their parent or legal guardian will be contacted through a screening and consent process. The estimated burden per response is 10 minutes (0.17), for a total of 6,840 hours. An estimated 8,057 youth will complete the Youth Baseline Questionnaire in order to yield 6,445 completes at the first followup; 5,156 completes at the second followup; and 4,125 completes at the third followup survey waves. The estimated burden per response is 30 minutes (0.5) for the baseline questionnaire, for a total of 4,029 hours. The estimated burden per response is 45 minutes (0.75) for each followup questionnaire, for a total of 4,834 burden hours for the first Followup Questionnaire; 3,867 hours for the second Followup Questionnaire; and 3,094 hours for the third Followup Questionnaire. The parent or legal guardian of youth recruited to complete the Youth Baseline Questionnaire will also complete a Parent Baseline Questionnaire with an estimate burden per response of 10 minutes (0.17), for a total of 1,704 hours. Additionally for clarity, FDA has added male youth, aged 11–18, to the burden chart. This is not a new component to the information collection as they were already a component of the study that falls within the group of youth aged 11–18. The rural smokeless campaign component of the evaluation differs from the experimenter and non-trier campaigns component in one major way—only males in the age range will be considered eligible.

To obtain the target number of completes for the media tracking survey, 40,000 respondents will be contacted for each survey wave through an online invitation. The estimated burden per response is 2 minutes (0.03), for a total of 1,200 hours for the first Media Tracking Screener; 1,200 hours for the second Media Tracking Screener; and 1,200 hours for the third Media Tracking Screener. An estimated 4,000 youths will be recruited to complete each of the three waves of the media tracking survey. The estimated burden per response is 30 minutes for each questionnaire, for a total of 2,000 hours for the first Media Tracking Questionnaire; 2,000 hours for the second Media Tracking Questionnaire; and 2,000 hours for the third Media Tracking Questionnaire.

The target number of completed campaign questionnaires for all responses is 211,859. The total estimated burden is 37,836 hours. After further review of the burden estimates, the Agency has revised the interview hourly burden in table 1, which was based on the number of samples needed to assess the campaigns in the final data collection request. The estimates are reflective of a decrease in the expected sample size and an increase in the timing for the screener followup surveys. The estimates of the sample size for the youth outcome baseline interviews in the 60-day **Federal Register** notice was an estimate for the general market population. The survey timing increased slightly for screeners and for followups because it was considered more realistic based on the instrument length.

In the **Federal Register** of June 21, 2013 (78 FR 37546), FDA published a 60-day notice requesting public comment on the proposed collection of information. Two comments were received, which were not PRA related, and are beyond the scope of this collection.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]

Type of respondent/activity	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
Outcome Evaluation Study General Population/ Screener and Consent Process (Youth and Parent).	40,238	1	40,238	0.17 (10 minutes)	6,840
United States Youth aged 11 to 16/Youth Baseline Questionnaire (Experimenter and Non-Trier).	8,057	1	8,057	0.5 (30 minutes)	4,029
United States Youth aged 11 to 18/Youth First Followup Questionnaire (Experimenter and Non-Trier).	6,445	1	6,445	0.75 (45 minutes)	4,834
United States Youth aged 11 to 18/Youth Second Followup Questionnaire (Experimenter and Non-Trier).	5,156	1	5,156	0.75 (45 minutes)	3,867
United States Youth aged 11 to 18/Youth Third Followup Questionnaire (Experimenter and Non-Trier).	4,125	1	4,125	0.75 (45 minutes)	3,094
United States Rural Markets Male Youth aged 11 to 18/Youth Baseline Questionnaire.	1,969	1	1,969	0.50 (30 minutes)	985
United States Rural Markets Male Youth aged 11 to 18/Youth First Followup Questionnaire.	1,575	1	1,575	0.75 (45 minutes)	1,182
United States Rural Markets Male Youth aged 11 to 18/Youth Second Followup Questionnaire.	1,260	1	1,260	0.75 (45 minutes)	945
United States Rural Markets Male Youth aged 11 to 18/Youth Third Followup Questionnaire.	1,008	1	1,008	0.75 (45 minutes)	756

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]—Continued

Type of respondent/activity	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
Parent of Youth Baseline Survey Participants/ Parent Baseline Questionnaire.	10,026	1	10,026	0.17 (10 minutes)	1,704
United States Youth aged 13 to 17/First Media Tracking Screener.	40,000	1	40,000	0.03 (2 minutes)	1,200
United States Youth aged 13 to 17/First Media Tracking Questionnaire.	4,000	1	4,000	0.5 (30 minutes)	2,000
United States Youth aged 13 to 17/Second Media Tracking Screener.	40,000	1	40,000	0.03 (2 minutes)	1,200
United States Youth aged 13 to 17/Second Media Tracking Questionnaire.	4,000	1	4,000	0.5 (30 minutes)	2,000
United States Youth aged 13 to 17/Third Media Tracking Screener.	40,000	1	40,000	0.03 (2 minutes)	1,200
United States Youth aged 13 to 17/Third Media Tracking Questionnaire.	4,000	1	4,000	0.5 (30 minutes)	2,000
Total Hours	.....	.....	.....	.....	37,836

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: September 5, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22014 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–D–0928]

Draft Guidance for Industry on Recommendations for Preparation and Submission of Animal Food Additive Petitions; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of a draft guidance for industry (GFI #221) entitled ''Recommendations for Preparation and Submission of Animal Food Additive Petitions.''

This draft guidance describes the types of information that FDA's Center for Veterinary Medicine (CVM) recommends for inclusion in food additive petitions (FAPs) submitted for food additives intended for use in food for animals. It is intended to help the petitioner submit such FAP information in a consistent and appropriate manner.

DATES: Although you can comment on any guidance at any time (see 21 CFR 10.115(g)(5)), to ensure that the Agency considers your comment on this draft guidance before it begins work on the final version of the guidance, submit either electronic or written comments on the draft guidance by November 12, 2013.

ADDRESSES: Submit written requests for single copies of the guidance to the Communications Staff (HFV–12), Center for Veterinary Medicine, Food and Drug Administration, 7519 Standish Pl., Rockville, MD 20855. Send one self-addressed adhesive label to assist that office in processing your requests. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the draft guidance document.

Submit electronic comments on the draft guidance to *http://www.regulations.gov.* Submit written comments to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Sharon Benz, Center for Veterinary Medicine (HFV–220), Food and Drug Administration, 7519 Standish Place, Rockville, MD 20855, 240–453–6864, *sharon.benz@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a draft guidance for industry (GFI #221) entitled ''Recommendations for Preparation and Submission of Animal Food Additive Petitions.'' It is intended to help petitioners submit FAP information in a consistent and appropriate manner.

The requirements for submitting an animal food additive petition to FDA are set forth in section 409 of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 348) and 21 CFR part 571. This draft guidance provides information for complying with these requirements.

This draft guidance includes the following information:

- How to determine if an animal food ingredient is already the subject of an approved FAP.
- Who to contact for more information about approved food additives.
- Who to contact for more information on how to submit an FAP for approval.
- When and how to request a pre-petition consultation with CVM before submitting an FAP.
- When and how to submit study designs for CVM review.
- What data CVM considers adequate to support an FAP.
- Where to find other FDA guidances that may be helpful when preparing and submitting an FAP to CVM.
- General recommendations for the format of an FAP submission.
- Where and how to submit an FAP.

II. Significance of Guidance

This level 1 draft guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The draft guidance, when finalized, will represent the Agency's current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

III. Paperwork Reduction Act of 1995

This draft guidance refers to previously approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under

the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The collections of information in §§ 571.1 and 571.6 have been approved under 0910–0546.

IV. Comments

Interested persons may submit either electronic comments regarding this document to *http://www.regulations.gov* or written comments to the Division of Dockets Management (see **ADDRESSES**). It is only necessary to send one set of comments. Identify comments with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday, and will be posted to the docket at *http://www.regulations.gov.*

V. Electronic Access

Persons with access to the Internet may obtain the draft guidance at either *http://www.fda.gov/AnimalVeterinary/GuidanceComplianceEnforcement/GuidanceforIndustry/default.htm* or *http://www.regulations.gov.*

Dated: September 4, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22012 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0001]

Society of Clinical Research Associates-Food and Drug Administration: Food and Drug Administration Clinical Trial Requirements, Regulations, Compliance, and Good Clinical Practice; Public Workshop

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of public workshop.

The Food and Drug Administration (FDA) is announcing the following public workshop entitled ''Educational Conference Co-Sponsored With the Society of Clinical Research Associates (SoCRA).'' The public workshop regarding FDA's clinical trial requirements is designed to aid the clinical research professional's understanding of the mission, responsibilities, and authority of FDA, and to facilitate interaction with FDA representatives. The program will focus on the relationships among FDA and clinical trial staff, investigators, and institutional review boards (IRBs). Individual FDA representatives will discuss the informed consent process including the informed consent documents; regulations relating to drugs, devices, and biologics; as well as inspections of clinical investigators, of IRBs, and of research sponsors.

Date and Time: The public workshop will be held on November 6 and 7, 2013, from 8 a.m. to 5 p.m.

Location: The public workshop will be held at the JW Marriott Atlanta Buckhead Hotel, 3300 Lenox Rd. NE., Atlanta, GA 30326, 404–262–3344.

Attendees are responsible for their own accommodations. Please mention SoCRA to receive the hotel room rate of $185.00 plus applicable taxes (available until October 15, 2013, or until the SoCRA room block is filled).

Contact Person: JoAnn Pittman, Food and Drug Administration, 60 Eighth Street NE., Atlanta, GA 30309, voicemail: 404–253–1272, FAX: 404–253–1202, or Society of Clinical Research Associates (SoCRA), 530 West Butler Ave., Suite 109, Chalfont, PA 18914, 800–762–7292 or 215–822–8644, FAX: 215–822–8633, email: *SoCRAmail@aol.com,* Web site: *www.socra.org.*

Registration: The registration fee will cover actual expenses including refreshments, lunch, materials, and speaker expenses. Seats are limited; please submit your registration as soon as possible. Workshop space will be filled in order of receipt of registration. Those accepted into the workshop will receive confirmation. The cost of the registration is as follows:

SoCRA member	$575.00.
SoCRA nonmember (includes membership).	$650.00.
Federal Government SoCRA member.	$450.00.
Federal Government SoCRA nonmember.	$525.00.
FDA Employee	(Free) Fee Waived.

If you need special accommodations due to a disability, please contact SoCRA, 800–762–7292 or 215–822–8644, FAX: 215–822–8633, or email: *SoCRAmail@aol.com* at least 21 days in advance.

Extended periods of question and answer and discussion have been included in the program schedule. SoCRA designates this education activity for a maximum of 13.3 Continuing Education (CE) credits for SoCRA CE and continuing nurse education (CNE). SoCRA designates this live activity for a maximum of 13.3 American Medical Association Physicians Recognition Award Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation. *Continuing Medical Education for physicians:* SoCRA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. *CNE for nurses:* SoCRA is an approved provider of CNE by the Pennsylvania State Nurses Association (PSNA), an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation (ANCC). ANCC/PSNA Provider Reference Number: 205–3–A–09.

Registration instructions: To register, please submit a registration form with your name, affiliation, mailing address, telephone, fax number, and email, along with a check or money order payable to ''SoCRA''. Mail to: Society of Clinical Research Associates (SoCRA), 530 West Butler Ave., Suite 109, Chalfont, PA 18914.

To register via the Internet, go to: *http://www.socra.org/html/FDA_Conference.htm.* (FDA has verified the Web site addresses throughout this document, but we are not responsible for any subsequent changes to the Web sites after this document is published in the **Federal Register**).

Payment by major credit card is accepted (Visa/MasterCard/AMEX only). For more information on the meeting registration, or for questions on the public workshop, contact SoCRA, 800–762–7292 or 215–822–8644, FAX: 215–822–8633, or email: *SoCRAmail@aol.com.*

SUPPLEMENTARY INFORMATION: The public workshop helps fulfill the Department of Health and Human Services' and FDA's important mission to protect the public health. The public workshop will provide those engaged in FDA-regulated (human) clinical trials with information on a number of topics concerning FDA requirements related to informed consent, clinical investigation requirements, IRB inspections, electronic record requirements, and investigator initiated research. Topics for discussion include the following: (1) The Role of the FDA District Office Relative to the Bioresearch Monitoring Program (BIMO); (2) Modernizing FDA's Clinical Trials/BIMO Programs; (3) What FDA Expects in a Pharmaceutical Clinical Trial; (4) Medical Device Aspects of Clinical Research; (5) Adverse Event Reporting—Science, Regulation, Error, and Safety; (6) Working with FDA's Center for Biologics Evaluation and Research; (7) Ethical Issues in Subject Enrollment; (8) Keeping Informed and Working

Together; (9) FDA Conduct of Clinical Investigator Inspections; (10) Investigator Initiated Research; (11) Meetings with FDA—Why, When, and How; (12) Part 11 Compliance—Electronic Signatures; (13) IRB Regulations and FDA Inspections; (14) Informed Consent Regulations; (15) The Inspection is Over—What Happens Next? Possible FDA Compliance Actions; and (16) Question and Answer Session/Panel Discussion.

FDA has made education of the drug and device manufacturing community a high priority to help ensure the safety and effectiveness of FDA-regulated drugs and devices. The public workshop helps to achieve objectives set forth in section 406 of the FDA Modernization Act of 1997 (21 U.S.C. 393) which includes working closely with stakeholders and maximizing the availability and clarity of information to stakeholders and the public. The public workshop also is consistent with the Small Business Regulatory Enforcement Fairness Act of 1996 (Public Law 104–121), as outreach activities by Government Agencies to small businesses.

Dated: September 6, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–22115 Filed 9–10–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Agency Information Collection Activities: Proposed Collection: Public Comment Request

AGENCY: Health Resources and Services Administration, HHS.

ACTION: Notice.

SUMMARY: In compliance with the requirement for opportunity for public comment on proposed data collection projects (Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995), the Health Resources and Services Administration (HRSA) announces plans to submit an Information Collection Request (ICR), described below, to the Office of Management and Budget (OMB). Prior to submitting the ICR to OMB, HRSA seeks comments from the public regarding the burden estimate below, or any other aspect of the ICR.

DATES: Comments on this Information Collection Request must be received within 60 days of this notice.

ADDRESSES: Submit your comments to *paperwork@hrsa.gov* or mail the HRSA Information Collection Clearance Officer, Room 10–29, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the data collection plans and draft instruments, email *paperwork@hrsa.gov* or call the HRSA Information Collection Clearance Officer at (301) 443–1984.

SUPPLEMENTARY INFORMATION: When submitting comments or requesting information, please include the information request collection title for reference.

Information Collection Request Title: Uniform Project Description and Application Guide—SF 424 Non-Construction.

OMB No. 0915-xxxx—New.

Abstract: The Health Resources and Services Administration is requesting clearance for the Uniform Project Description (UPD) and Application Guide to be used in conjunction with the SF–424 Non-Construction application kit by program offices to solicit application information for grants and cooperative agreements.

Need and Proposed Use of the Information: The HRSA SF–424 Application Guide provides detailed standard instructions to help applicants prepare and submit applications electronically to HRSA through Grants.gov. The Guide is used in conjunction with the HRSA UPD that provides a menu of narratives from which the program office can select for inclusion within a program-specific grant or cooperative agreement funding opportunity announcement (FOA). UPD text options selected for use in a given FOA define the required project description portion to the applicant. The ability to pick and choose standard language that is appropriate for any given FOA reduces the burden associated with application preparation by eliminating irrelevant portions of the application for a given announcement. In addition, it provides consistency in the application review process.

Much of the information required in applications for project grants and cooperative agreements is required by HHS Uniform Administrative Requirements for Grants and Cooperative Agreements at the following citations: 45 CFR part 74, 45 CFR part 92, applicable program regulations in 42 CFR chapters I and IV, and applicable administrative regulations in 45 CFR subtitle A.

HRSA program offices, grants management officials, and expert non-federal and federal panel reviewers use the collected information provided through grant applications to select and award discretionary grants. Program offices use the information to ensure that the authorizing legislation and applicable program regulations will be implemented through any funded project, and that applicant entities are eligible to receive HRSA funds. Expert non-federal and federal objective review panelists score the information provided in applications as they evaluate applications in the context of the FOA's published criteria to ensure that the best proposed projects are recommended for funding. Grants management officials use the information to ensure appropriate federal stewardship of federal grant funds and that proposed budgeted project costs are allowable, allocable, and reasonable.

Likely Respondents: Eligible organizations may include state, local, and Indian Tribal governments; institutions of higher education; other non-profit organizations (including faith-based, community-based, and Tribal organizations); and hospitals. In limited cases, foreign organizations may apply.

Burden Statement: Burden in this context means the time expended by persons to generate, maintain, retain, disclose or provide the information requested. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information. The total annual burden hours estimated for this Information Collection Request are summarized in the table below.

TOTAL ESTIMATED ANNUALIZED BURDEN HOURS

Form name	Number of respondents	Number of responses per respondent	Total responses	Average burden per response (in hours)	Total burden hours
SF–424 Non-Construction UPD and SF–424 Application Guide	3,500	1	3,500	145	507,500
Total	3,500	1	3,500	145	507,500

HRSA specifically requests comments on (1) the necessity and utility of the proposed information collection for the proper performance of the agency's functions, (2) the accuracy of the estimated burden, (3) ways to enhance the quality, utility, and clarity of the information to be collected, and (4) the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

Dated: September 5, 2013.

Bahar Niakan,

Director, Division of Policy and Information Coordination.

[FR Doc. 2013–22111 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Agency Information Collection Activities: Submission to OMB for Review and Approval; Public Comment Request

AGENCY: Health Resources and Services Administration, HHS.

ACTION: Notice.

SUMMARY: In compliance with Section 3507(a)(1)(D) of the Paperwork Reduction Act of 1995, the Health Resources and Services Administration (HRSA) has submitted an Information Collection Request (ICR) to the Office of Management and Budget (OMB) for review and approval. Comments submitted during the first public review of this ICR will be provided to OMB. OMB will accept further comments from the public during the review and approval period.

DATES: Comments on this ICR should be received within 30 days of this notice.

ADDRESSES: Submit your comments, including the Information Collection Request Title, to the desk officer for HRSA, either by email to *OIRA_submission@omb.eop.gov* or by fax to 202–395–5806.

FOR FURTHER INFORMATION CONTACT: To request a copy of the clearance requests submitted to OMB for review, email the HRSA Information Collection Clearance Officer at *paperwork@hrsa.gov* or call (301) 443–1984.

SUPPLEMENTARY INFORMATION:

Information Collection Request Title: Evaluation and Initial Assessment of HRSA Teaching Health Centers.

OMB No. 0915–xxxx—NEW.

Abstract: Section 5508 of the Affordable Care Act of 2010 (ACA) amended section 340H of the Public Health Service (PHS) Act to establish the Teaching Health Center Graduate Medical Education (THCGME) program to support the expansion of new and existing primary care residency training programs in community-based settings. The primary goals of the THCGME program are to increase the production of primary care doctors who are well prepared to practice in community settings, particularly with underserved populations, and to improve the overall number and geographic distribution of primary care providers. To ensure these goals are achieved, the George Washington University (GW) will conduct an evaluation of the training, administrative and organizational structures, clinical service, challenges, innovations, costs associated with training, and outcomes of teaching health centers (THCs). GW has developed a program data collection tool that assesses basic organizational and training characteristics of the programs (including program specialty, numbers trained, training sites, educational partners, and residency program financing), educational initiatives (particularly around training for changing health care delivery systems and community experiences), and health center characteristics (including current workforce and vacancies, clinical service provided by residents, and participation in workforce programs such as the National Health Service Corps).

Questionnaires have also been developed for implementation with all THC matriculating residents, graduating residents, and graduated residents at 1 year post-graduation. The matriculation questionnaire aims to collect background information on THC residents to better understand the characteristics of individuals who apply and are accepted to THC programs. The graduation questionnaire collects information on career plans. The alumni questionnaire collects information on career outcomes (including practice in primary care and in underserved settings) following graduation, as well as feedback on the quality of training.

Need and Proposed Use of the Information: Statute requires that THC programs report annually on the types of primary care resident approved training programs provided, the number of approved training positions, the number who completed their residency at the end of the prior academic year and care for vulnerable populations living in underserved areas, and any other information as deemed appropriate by the Secretary (Section 340H(h)(1) of the PHS Act). The described data collection activities will serve to meet this statutory requirement for the THC programs in a uniform and consistent manner and will allow comparisons of this group to other trainees in non-THC programs (*See also* Section 241 of the PHS Act).

Likely Respondents: THC Program Directors will respond to the part of the data collection tool related to the characteristics of the programs, and THC matriculating residents, graduating residents, and graduated residents at 1 year post-graduation will respond to the questionnaires related to characteristics of the residents.

Burden Statement: Burden in this context means the time expended by persons to generate, maintain, retain, disclose or provide the information requested. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information; to search

data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information. The total annual burden hours estimated for this ICR are summarized in the table below.

TOTAL ESTIMATED ANNUALIZED BURDEN—HOURS

Form name	Number of respondents	Number of responses per respondent	Total responses	Average burden per response (in hours)	Total burden hours
Program Data Collection Tool	40	1	40	8.00	320
THC Alumni Survey	200	1	200	0.33	66
THC Matriculant Survey	200	1	200	0.25	50
THC Graduation Survey	200	1	200	0.25	50
Total	640		640		486

Dated: September 5, 2013.

Bahar Niakan,

Director, Division of Policy and Information Coordination.

[FR Doc. 2013–22106 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Health Workforce Research Center Cooperative Agreement Program

AGENCY: Health Resources and Services Administration (HRSA), HHS.

ACTION: Notice.

SUMMARY: The Bureau of Health Professions (BHPr) is announcing a change to its Health Workforce Research Center cooperative agreement program. Funding Opportunity Announcement (FOA) HRSA–13–185, issued on November 26, 2012, announced HRSA's intent to fund Health Workforce Research Centers (HWRCs) focusing on research and technical assistance (TA). The FOA identified five broad areas of focus for research in HWRCs: Allied health, long-term care, behavioral health, oral health, and flexible use of workers to improve care delivery and efficiency. The concentration area, ''flexible use of workers to improve care delivery and efficiency,'' was further defined via published ''frequently asked questions'' as an area intended to address questions related to leveraging the existing health workforce to improve access to care, efficiency, and effectiveness in care delivery. Suggested topics for study included novel health care roles, team-based care (including the composition of teams and division of responsibilities across a team), professionals working at the top of their skills and training, and delegation. These proposed concentration areas were selected as areas of critical importance to health workforce policies and programs, as well as areas in which substantial expertise exists outside the government, indicating strong potential for public benefit.

Applicants were asked to design a portfolio consisting of six research or TA projects, of which a subset would be selected for completion in the first budget period. Applicants were instructed to use their own judgment and expertise in designing a portfolio that would address timely, relevant, and important health workforce policy and planning questions.

Though the FOA indicated the intent to fund only one cooperative agreement in each research focus area, the latitude given to applicants in designing their portfolios resulted in diverse interpretations of the concentration areas, particularly in the ''flexible use of workers'' category. For example, the top two ranked ''flexible use of workers'' HWRC (ranked at second and third in the research category) have distinct areas of focus. One focuses its portfolio on use of workers in community health centers, health IT, and telehealth. The other focuses primarily on primary care, including competencies for primary care teams, temporal shifts between primary and specialty practice over time, and flexibility in primary vs. specialty care service offerings. After further consideration, and in light of growing interest in promoting full and effective use of health workers, HRSA has concluded it is appropriate and consistent with the intent of the FOA to fund more than one cooperative agreement in a single area of concentration if the proposals cover research on distinct issues of importance.

With this in mind, BHPr intends to fund two HWRCs in the concentration area ''flexible use of workers.'' This decision was made in light of the critical importance of defining new and emerging roles and models of the health workforce to meet the nation's changing health care needs. In addition, this allows BHPr to fund directly down the rank order list of applicants produced in the independent review process.

FOR FURTHER INFORMATION CONTACT: Margaret Glos, Management Analyst, National Center for Health Workforce Analysis, Bureau of Health Professions, Health Resources and Services Administration, 5600 Fishers Lane, Room 9–57, Rockville, Maryland 20852, by phone: (301) 443–3579; fax: (301) 443–6380; or email: *mglos@hrsa.gov.*

Dated: September 5, 2013.

Mary K. Wakefield,

Administrator.

[FR Doc. 2013–22105 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service

Notice of Service Delivery Area Designation for the Wilton Rancheria

AGENCY: Indian Health Service.

ACTION: Notice.

SUMMARY: This Notice advises the public that the Indian Health Service (IHS) proposes the geographic boundaries of the Service Delivery Area (SDA) for the newly restored Wilton Rancheria. The Wilton Rancheria SDA is to be comprised of Sacramento County in the State of California. The county listed is designated administratively as the SDA, to function as a Contract Health Service Delivery Area (CHSDA), for the purpose of operating a Contract Health Service (CHS) program pursuant to the Indian Self-Determination and Education Assistant Act (ISDEAA), Public Law 93–638.

DATES: This notice is effective 30 days after date of publication in the **Federal Register** (FR).

ADDRESSES: Comments may be mailed to Ms. Betty Gould, Regulations Officer,

Indian Health Service, 801 Thompson Avenue, Suite 450, Maryland 20852. Comments will be made available for public inspection at this address from 8:30 a.m. to 5:00 p.m. Monday–Friday beginning approximately two weeks after publication of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. Carl Harper, Director, Office of Resource Access and Partnerships, Indian Health Service, 801 Thompson Avenue, Suite 360, Rockville, Maryland 20852. Telephone 301/443–2694 (This is not a toll free number).

SUPPLEMENTARY INFORMATION: The IHS currently provides services under regulations in effect on September 15, 1987 and IHS republished at 42 CFR Part 136, Subparts A–C. Many of the newly recognized/restored/reaffirmed Tribes do not have reservations and either Congress has legislatively designated counties to serve as SDAs or the Director, IHS, exercised reasonable administrative discretion to designate SDAs to effectuate the intent of Congress for these Tribes. The Director, IHS, published notice of the establishment of SDAs in the June 21, 2007 FR Notice (72 FR 34262–01). The SDAs function as CHSDAs for the purposes of operating a CHS program pursuant to the ISDEAA, Public Law 93–638. Thus, the CHSDA list incorporates the SDAs that operate as CHSDAs for newly recognized/restored/reaffirmed Tribes. At 42 CFR 136 Subpart C, a CHSDA is defined as the geographic area within which CHS will be made available by the IHS to members of an identified Indian community who reside in the area. Residence within a CHSDA by a person who is within the scope of the Indian health program, as set forth in 42 CFR 136.12 creates no legal entitlement to CHS, but only potential eligibility for services. Services needed but not available at an IHS/Tribal facility are provided under the CHS program, depending on the availability of funds, the person's relative medical priority, and the actual availability and accessibility of alternate resources in accordance with the regulations. As applicable to the Tribes, these regulations provide that, unless otherwise designated, a CHSDA shall consist of a county which includes all or part of a reservation and any county or counties which have a common boundary with the reservation (42 CFR 136.22(a)(6) (2007).

As of June 8, 2009, the Wilton Miwok Rancheria was restored as an Indian Tribe within the meaning of Federal law. The restoration of the Tribe's status as a federally recognized Tribe was published in the July 13, 2009 FR Notice (74 FR 33468). The Wilton Rancheria is located in Sacramento County in the State of California. After consultation with the Tribal governing body, the SDA for the Wilton Rancheria was agreed upon. The purpose of this FR Notice is to notify the public that the IHS now administratively designates Sacramento County in the State of California as the Wilton Rancheria's SDA. In California, Congress designated the entire state as a CHSDA, excluding certain counties (including Sacramento County) under section 810 of the Indian Healthcare Improvement Act, Public Law 94–437, as amended (25 U.S.C. 1680). The Director, IHS, may establish SDAs for the purpose of providing CHS for newly recognized/restored/reaffirmed Tribes that were not covered by Congress' establishment of certain counties in California as a CHSDA. These SDAs may include all or part of counties that are not included in the Congressional establishment.

Under 42 CFR 136.23, eligible Indians who do not reside on a reservation, but reside within a CHSDA, must be either members of the Tribe or maintain close economic and social ties with the Tribe. In this case, the Tribe estimated the eligible user population to be 676 enrolled Wilton Miwok Rancheria Tribal members who are actively involved with the Tribe.

This notice does not contain reporting or recordkeeping requirements subject to prior approval by the Office of Management and Budget under the Paperwork Reduction Act of 1980.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS

Tribe/reservation	County/State
Ak Chin Indian Community of the Maricopa (Ak Chin) Indian Reservation, Arizona.	Pinal, AZ.
Alabama-Coushatta Tribes of Texas	Polk, TX.[1]
Alaska	Entire State.[2]
Arapahoe Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Aroostook Band of Micmac Indians of Maine	Aroostook, ME.[3]
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana.	Daniels, MT, McCone, MT, Richland, MT, Roosevelt, MT, Sheridan, MT, Valley, MT.
Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin.	Ashland, WI, Iron, WI.
Bay Mills Indian Community, Michigan	Chippewa, MI.
Blackfeet Tribe of the Blackfeet Indian Reservation of Montana	Glacier, MT, Pondera, MT.
Minnesota Chippewa Tribe, Minnesota Bois Forte Band (Nett Lake)	Itasca, MN, Koochiching, MN, St. Louis, MN.
Brigham City Intermountain School Health Center, Utah	([4]).
Burns Paiute Tribe of the Burns Paiute Indian Colony of Oregon	Harney, OR.
California	Entire State, except for the counties listed in the footnote.[5]
Catawba Indian Nation of South Carolina	All Counties in SC,[6] Cabarrus, NC, Cleveland, NC, Gaston, NC, Mecklenburg, NC, Rutherford, NC, Union, NC.
Cayuga Nation of New York	Allegany, NY,[7] Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota.	Corson, SD, Dewey, SD, Haakon, SD, Meade, SD, Perkins, SD, Potter, SD, Stanley, SD, Sully, SD, Walworth, SD, Ziebach, SD.
Chippewa-Cree Indians of the Rocky Boy's Reservation, Montana	Chouteau, MT, Hill, MT, Liberty, MT.
Chitimacha Tribe of Louisiana	St. Mary Parish, LA.
Cocopah Tribe of Arizona	Yuma, AZ, Imperial, CA.
Coeur D'Alene Tribe of the Coeur D'Alene Reservation, Idaho	Benewah, ID, Kootenai, ID, Latah, ID, Spokane, WA, Whitman, WA.
Colorado River Indian Tribes of the Colorado River Indian Reservation, Arizona and California.	La Paz, AZ, Riverside, CA, San Bernardino, CA, Yuma, AZ.
Confederated Salish & Kootenai Tribes of the Flathead Reservation, Montana.	Flathead, MT, Lake, MT, Missoula, MT, Sanders, MT.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/State
Confederated Tribes of the Chehalis Reservation, Washington	Grays Harbor, WA, Lewis, WA, Thurston, WA.
Confederated Tribes of the Colville Reservation, Washington	Chelan, WA),[8] Douglas, WA, Ferry, WA, Grant, WA, Lincoln, WA, Okanogan, WA, Stevens, WA.
Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians of Oregon.	Coos, OR,[9] Curry, OR, Douglas, OR, Lane, OR, Lincoln, OR.
Confederated Tribes of the Goshute Reservation, Nevada and Utah	Nevada, Juab, UT, Toole, UT.
Confederated Tribes of Grand Ronde Community of Oregon	Polk, OR,[10] Washington, OR, Marion, OR, Yamhill, OR, Tillamook, OR, Multnomah, OR.
Confederated Tribes of the Siletz Reservation, Oregon	Benton, OR,[11] Clackamas, OR, Lane, OR, Lincoln, OR, Linn, OR, Marion, OR, Multnomah, OR, Polk, OR, Tillamook, OR, Washington, OR, Yam Hill, OR.
Confederated Tribes of the Umatilla Reservation, Oregon	Umatilla, OR, Union, OR.
Confederated Tribes of the Warm Springs Reservation of Oregon	Clackamas, OR, Jefferson, OR, Linn, OR, Marion, OR, Wasco, OR.
Confederated Tribes & Bands of the Yakama Nation, Washington	Klickitat, WA, Lewis, WA, Skamania, WA,[12] Yakima, WA.
Coquille Tribe of Oregon	Coos, OR, Curry, OR, Douglas, OR, Jackson, OR, Lane, OR.
Coushatta Tribe of Louisiana	Allen Parish, LA, Elton, LA.[13]
Cow Creek Band of Umpqua Indians of Oregon	Coos, OR,[14], Deshutes, OR, Douglas, OR, Jackson, OR, Josephine, OR, Klamath, OR, Lane, OR.
Cowlitz Indian Tribe, Washington	Clark, WA, Cowlitz, WA, King, WA, Lewis, WA, Pierce, WA, Skamania, WA, Thurston, WA, Columbia, OR, Kittitas, WA, Wahkiakum, WA.[15]
Crow Tribe of Montana	Big Horn, MT, Carbon, MT, Treasure, MT,[16] Yellowstone, MT, Big Horn, WY, Sheridan, WY.
Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota	Brule, SD, Buffalo, SD, Hand, SD, Hughes, SD, Hyde, SD, Lyman, SD, Stanley, SD.
Eastern Band of Cherokee Indians of North Carolina	Cherokee, NC, Graham, NC, Haywood, NC, Jackson, NC, Swain, NC.
Flandreau Santee Sioux Tribe of South Dakota	Moody, SD.
Fond du Lac Band of Chippewa Indians of Minnesota	Carlton, MN, St. Louis, MN.
Forest County Potawatomi Community, Wisconsin	Forest, WI, Marinette, WI, Oconto, WI.
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana.	Blaine, MT, Phillips, MT.
Fort McDermitt Paiute and Shoshone Tribes of the Fort McDermitt Indian Reservation, Nevada and Oregon.	Nevada, Malheur, OR.
Fort McDowell Yavapai Nation, Arizona	Maricopa, AZ.
Fort Mojave Indian Tribe of Arizona, California and Nevada	Nevada, Mohave, AZ, San Bernardino, CA.
Gila River Indian Community of the Gila River Indian Reservation, Arizona.	Maricopa, AZ, Pinal, AZ.
Grand Portage Band of Chippewa Indians of Minnesota	Cook, MN.
Grand Traverse Band of Ottawa & Chippewa Indians of Michigan	Antrim, MI,[17] Benzie, MI, Charlevoix, MI, Grand Traverse, MI, Leelanau, MI, Manistee, MI.
Hannahville Indian Community, Michigan	Delta, MI, Menominee, MI.
Haskell Indian Health Center	Douglas, KS.[18]
Havasupai Tribe of the Havasupai Reservation, Arizona	Coconino, AZ.
Ho-Chunk Nation of Wisconsin	Adams, WI,[19] Clark, WI, Columbia, WI, Crawford, WI, Dane, WI, Eau Claire, WI, Houston, MN, Jackson, WI, Juneau, WI, La Crosse, WI, Marathon, WI, Monroe, WI, Sauk, WI, Shawano, WI, Vernon, WI, Wood, WI.
Hoh Indian Tribe of the Hoh Indian Reservation, Washington	Jefferson, WA.
Hopi Tribe of Arizona.	Apache, AZ, Coconino, AZ, Navajo, AZ.
Houlton Band of Maliseet Indians of Maine	Aroostook, ME,[20]
Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona	Coconino, AZ, Mohave, AZ, Yavapai, AZ.
Huron Potawatomi, Inc., Michigan	Allegan, MI,[21] Barry, MI, Branch, MI, Calhoun, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Iowa Tribe of Kansas and Nebraska	Brown, KS, Doniphan, KS, Richardson, NE.
Jamestown S'Klallam Tribe of Washington	Clallam, WA, Jefferson, WA.
Jena Band of Choctaw Indians, Louisiana	Grand Parish, LA,[22] LaSalle Parish, LA, Rapides Parish, LA.
Jicarilla Apache Nation, New Mexico	Archuleta, CO, Rio Arriba, NM, Sandoval, NM.
Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona.	Coconino, AZ, Mohave, AZ, Kane, UT.
Kalispel Indian Community of the Kalispel Indian Reservation, Washington.	Pend Oreille, WA, Spokane, WA.
Keweenaw Bay Indian Community, Michigan	Baraga, MI, Houghton, MI, Ontonagon, MI.
Kickapoo Tribe of Indians of the Kickapoo Reservation of Kansas	Brown, KS, Jackson, KS.
Kickapoo Traditional Tribe of Texas	Maverick, TX.[23]
Klamath Tribes of Oregon	Klamath, OR.[24]
Kootenai Tribe of Idaho	Boundary, ID.
Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin.	Sawyer, WI.
Lac du Flambeau Band of Lake Superior Chippewa Indians of the Lac du Flambeau Reservation of Wisconsin.	Iron, WI, Oneida, WI, Vilas, WI.
Lac Vieux Desert Band of Lake Superior Chippewa Indians, Michigan	Gogebic, MI.
Leech Lake Band of Chippewa Indians of Minnesota	Beltrami, MN, Cass, MN, Hubbard, MN, Itasca, MN.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/State
Little River Band of Ottawa Indians, Michigan	Kent, MI,[25] Muskegon, MI, Newaygo, MI, Oceana, MI, Ottawa, MI, Manistee, MI, Mason, MI, Wexford, MI, Lake, MI.
Little Traverse Bay Bands of Odawa Indians, Michigan	Alcona, MI,[26] Alger, MI, Alpena, MI, Antrim, MI, Benzie, MI, Charlevoix, MI, Cheboygan, MI, Chippewa, MI, Crawford, MI, Delta, MI, Emmet, MI, Grand Traverse, MI, Iosco, MI, Kalkaska, MI, Leelanau, MI, Luce, MI, Mackinac, MI, Manistee, MI, Missaukee, MI, Montmorency, MI, Ogemaw, MI, Oscoda, MI, Otsego, MI, Presque Isle, MI, Schoolcraft, MI, Roscommon, MI, Wexford, MI.
Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota	Brule, SD, Buffalo, SD, Hughes, SD, Lyman, SD, Stanley, SD.
Lower Elwha Tribal Community of the Lower Elwha Reservation, Washington.	Clallam, WA.
Lower Sioux Indian Community in the State of Minnesota	Redwood, MN, Renville, MN.
Lummi Tribe of the Lummi Reservation, Washington	Whatcom, WA.
Makah Indian Tribe of the Makah Reservation, Washington	Clallam, WA.
Mashantucket Pequot Tribe of Connecticut	New London, CT.[27]
Mashpee Wampanoag	Barnstable, MA, Bristol, MA, Norfolk, MA, Plymouth, MA and Suffolk, MA.[28]
Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	Allegan, MI,[29] Barry, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Menominee Indian Tribe of Wisconsin	Langlade, WI, Menominee, WI, Oconto, WI, Shawano, WI.
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico	Chaves, NM, Lincoln, NM, Otero, NM.
Miccosukee Tribe of Indians of Florida	Broward, FL, Collier, FL, Miami-Dade, FL, Hendry, FL.
Mille Lacs Band of Chippewa Indians of Minnesota	Aitkin, MN, Kanebec, MN, Mille Lacs, MN, Pine, MN.
Mississippi Band of Choctaw Indians, Mississippi	Attala, MS, Jasper, MS,[30] Jones, MS Kemper, MS, Leake, MS, Neshoba, MS, Newton, MS, Noxubee, MS,[31] Scott, MS,[32] Winston, MS.
Mohegan Indian Tribe of Connecticut	Fairfield, CT, Hartford, CT, Litchfield, CT, Middlesex, CT, New Haven, CT, New London, CT, Tolland, CT, Windham, CT.
Muckleshoot Indian Tribe of the Muckleshoot Reservation, Washington	King, WA, Pierce, WA.
Narragansett Indian Tribe of Rhode Island	Washington, RI.[33]
Navajo Nation, Arizona, New Mexico and Utah	Apache, AZ, Bernalillo, NM, Cibola, NM, Coconino, AZ, Kane, UT, McKinley, NM, Montezuma, CO, Navajo, AZ, Rio Arriba, NM, Sandoval, NM, San Juan, NM, San Juan, UT, Socorro, NM, Valencia, NM.
Nevada	Entire State.[34]
Nez Perce Tribe of Idaho	Clearwater, ID, Idaho, ID, Latah, ID, Lewis, ID, Nez Perce, ID.
Nisqually Indian Tribe of the Nisqually Reservation, Washington	Pierce, WA, Thurston, WA.
Nooksack Indian Tribe of Washington	Whatcom, WA.
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana.	Big Horn, MT, Carter, MT,[35] Rosebud, MT.
Northwestern Band of Shoshoni Nation of Utah (Washakie)	Box Elder, UT.[36]
Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota	Bennett, SD, Cherry, NE, Custer, SD, Dawes, NE, Fall River, SD, Jackson, SD,[37] Mellete, SD, Pennington, SD, Shannon, SD, Sheridan, NE, Todd, SD.
Oklahoma	Entire State.[38]
Omaha Tribe of Nebraska	Burt, NE, Cuming, NE, Monona, IA, Thurston, NE, Wayne, NE.
Oneida Nation of New York	Chenango, NY, Cortland, NY, Herkimer, NY, Madison, NY, Oneida, NY, Onondaga, NY.
Oneida Tribe of Indians of Wisconsin	Brown, WI, Outagamie, WI.
Onondaga Nation of New York	Onondaga, NY.
Paiute Indian Tribe of Utah	Iron, UT,[39] Millard, UT, Sevier, UT, Washington, UT.
Pascua Yaqui Tribe of Arizona	Pima, AZ.[40]
Passamaquoddy Tribe of Maine	Aroostook, ME,[41] Washington, ME.
Passamaquoddy Tribe of Pleasant Point, Maine	Washington, ME, south of State Route.[42]
Penobscot Tribe of Maine	Aroostook, ME,[43] Penobscot, ME.
Poarch Band of Creek Indians of Alabama	Baldwin, AL,[44] Elmore, AL, Escambia, AL, Mobile, AL, Monroe, AL, Escambia, FL.
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Allegan, MI, Berrien, MI, Cass, MI, Elkhart, IN,[45] Kosciusko, IN, La Porte, IN, Marshall, IN, St. Joseph, IN, Starke, IN, Van Buren, MI.
Ponca Tribe of Nebraska	Boyd, NE,[46] Burt, NE, Charles Mix, SD, Douglas, NE, Hall, NE, Holt, NE, Knox, NE, Lancaster, NE, Madison, NE, Platte, NE, Pottawattomie, IA, Sarpy, NE, Stanton, NE, Wayne, NE, Woodbury, IA.
Port Gamble Indian Community of the Port Gamble Reservation, Washington.	Kitsap, WA.
Prairie Band of Potawatomi Nation, Kansas	Jackson, KS.
Prairie Island Indian Community in the State of Minnesota	Goodhue, MN.
Pueblo of Acoma, New Mexico	Cibola, NM.
Pueblo of Cochiti, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Jemez, New Mexico	Sandoval, NM.
Pueblo of Isleta, New Mexico	Bernalillo, NM, Torrance, NM, Valencia, NM.
Pueblo of Laguna, New Mexico	Bernalillo, NM, Cibola, NM, Sandoval, NM, Valencia, NM.
Pueblo of Nambe, New Mexico	Santa Fe, NM.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/State
Pueblo of Picuris, New Mexico	Taos, NM.
Pueblo of Pojoaque, New Mexico	Rio Arriba, NM, Santa Fe, NM.
Pueblo of San Felipe, New Mexico	Sandoval, NM.
Pueblo of San Ildefonso, New Mexico	Los Alamos, NM, Rio Arriba, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of San Juan, New Mexico	Rio Arriba, NM.
Pueblo of Sandia, New Mexico	Bernalillo, NM, Sandoval, NM.
Pueblo of Santa Ana, New Mexico	Sandoval, NM.
Pueblo of Santa Clara, New Mexico	Los Alamos, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of Santo Domingo, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Taos, New Mexico	Colfax, NM, Taos, NM.
Pueblo of Tesuque, New Mexico	Santa Fe, NM.
Pueblo of Zia, New Mexico	Sandoval, NM.
Puyallup Tribe of the Puyallup Reservation, Washington	King, WA, Pierce, WA, Thurston, WA.
Quechan Tribe of the Fort Yuma Indian Reservation, California and Arizona.	Yuma, AZ, Imperial, CA.
Quileute Tribe of the Quileute Reservation, Washington	Clallam, WA, Jefferson, WA.
Quinault Tribe of the Quinault Reservation, Washington	Grays Harbor, WA, Jefferson, WA.
Rapid City, South Dakota	Pennington, SD.[47]
Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin	Bayfield, WI.
Red Lake Band of Chippewa Indians, Minnesota	Beltrami, MN, Clearwater, MN, Koochiching, MN, Lake of the Woods, MN, Marshall, MN, Pennington, MN, Polk, MN, Roseau, MN.
Rosebud Sioux Tribe of the Rosebud Indian Reservation. South Dakota	Bennett, SD, Cherry, NE, Gregory, SD, Lyman, SD, Mellette, SD, Todd, SD, Tripp, SD.
Sac & Fox Tribe of the Mississippi in Iowa	Tama, IA.
Sac & Fox Nation of Missouri in Kansas & Nebraska	Brown, KS, Richardson, NE.
Saginaw Chippewa Indian Tribe of Michigan	Arenac, MI,[48] Clare, MI, Isabella, MI, Midland, MI, Missaukee, MI.
St. Croix Chippewa Indians of Wisconsin	Barron, WI, Burnett, WI, Pine, MN, Polk, WI Washburn, WI.
Saint Regis Mohawk Tribe, New York	Franklin, NY, St. Lawrence, NY.
Salt River Pima-Maricopa Indian Community of Salt River Reservation, Arizona.	Maricopa, AZ.
Samish Indian Tribe, Washington	Clallam, WA,[49] Island, WA, Jefferson, WA King, WA, Kitsap, WA, Pierce, WA, San Juan, WA, Skagit, WA, Snohomish, WA, Whatcom, WA.
San Carlos Apache Tribe of the San Carlos Reservation, Arizona	Apache, AZ, Cochise, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Pinal, AZ.
San Juan Southern Paiute Tribe of Arizona	Coconino, AZ, San Juan, UT.
Santee Sioux Nation, Nebraska	Bon Homme, SD, Knox, NE.
Sauk-Suiattle Indian Tribe of Washington	Snohomish, WA, Skagit, WA.
Sault Ste. Marie Tribe of Chippewa Indians of Michigan	Alger, MI,[50] Chippewa, MI, Delta, MI Luce, MI, Mackinac, MI, Marquette, MI Schoolcraft, MI.
Seminole Tribe of Florida	Broward, Fl, Collier, Fl, Miami-Dade, FL, Glades, FL, Hendry, FL.
Seneca Nation of New York	Allegany, NY, Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Shakopee Mdewakanton Sioux Community of Minnesota	Scott, MN.
Shinnecock Indian Nation	Nassau, NY,[51] Suffolk, NY.
Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation, Washington.	Pacific, WA.
Shoshone Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	Bannock, ID, Bingham, ID, Caribou, ID, Lemhi, ID,[52] Power, ID.
Shoshone-Paiute Tribes of the Duck Valley Reservation, Nevada	Nevada, Owyhee, ID.
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota.	Codington, SD, Day, SD, Grant, SD, Marshall, SD, Richland, ND, Roberts, SD, Sargent, ND, Traverse, MN.
Skokomish Indian Tribe of Skokomish Reservation, Washington	Mason, WA.
Skull Valley Band of Goshute Indians of Utah	Tooele, UT.
Snoqualmie Tribe, Washington	King, WA,[53] Snohomish, WA, Pierce, WA, Island, WA, Mason, WA.
Sokaogon Chippewa Community, Wisconsin	Forest, WI.
Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado	Archuleta, CO, La Plata, CO, Montezuma, CO, Rio Arriba, NM, San Juan, NM.
Spirit Lake Tribe, North Dakota	Benson, ND, Eddy, ND, Nelson, ND, Ramsey, ND.
Spokane Tribe of the Spokane Reservation, Washington	Ferry, WA, Lincoln, WA, Stevens, WA.
Squaxin Island Tribe of the Squaxin Island Reservation, Washington	Mason, WA.
Standing Rock Sioux Tribe of North and South Dakota	Adams, ND, Campbell, SD, Corson, SD, Dewey, SD, Emmons, ND, Grant, ND, Morton, ND, Perkins, SD, Sioux, ND, Walworth, SD, Ziebach, SD.
Stockbridge Munsee Community, Wisconsin	Menominee, WI, Shawano, WI.
Stillaguamish Tribe of Washington	Snohomish, WA.
Suquamish Indian Tribe of the Port Madison Reservation, Washington	Kitsap, WA.
Swinomish Indians of the Swinomish Reservation, Washington	Skagit, WA.
Tejon Indian Tribe	Kern, CA.[54]
Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota	Dunn, ND, Mercer, ND, McKenzie, ND, McLean, ND, Mountrail, ND, Ward, ND.
Tohono O'odham Nation of Arizona	Maricopa, AZ, Pima, AZ, Pinal, AZ.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/State
Tonawanda Band of Seneca Indians of New York	Genesee, NY, Erie, NY, Niagara, NY.
Tonto Apache Tribe of Arizona	Gila, AZ.
Trenton Service Unit, North Dakota and Montana	Divide, ND,[55] McKenzie, ND, Williams, ND, Richland, MT, Roosevelt, MT, Sheridan, MT.
Tulalip Tribes of the Tulalip Reservation, Washington	Snohomish, WA.
Tunica-Biloxi Indian Tribe of Louisiana	Avoyelles, LA, Rapides, LA.[56]
Turtle Mountain Band of Chippewa Indians of North Dakota	Rolette, ND.
Tuscarora Nation of New York	Niagara, NY.
Upper Sioux Community, Minnesota	Chippewa, MN, Yellow Medicine, MN.
Upper Skagit Indian Tribe of Washington	Skagit, WA.
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	Carbon, UT, Daggett, UT, Duchesne, UT, Emery, UT, Grand, UT, Rio Blanco, CO, Summit, UT, Uintah, UT, Utah, UT, Wasatch, UT.
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico and Utah.	Apache, AZ, La Plata, CO, Montezuma, CO, San Juan, NM, San Juan, UT.
Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts	Dukes, MA.[57]
Washoe Tribe of Nevada & California	Entire State of NV Entire State of CA, except for the counties listed in footnote.
White Earth Band of Chippewa Indians of Minnesota	Becker, MN, Clearwater, MN, Mahnomen, MN Norman, MN, Polk, MN.
White Mountain Apache Tribe of the Fort Apache Reservation, Arizona	Apache, AZ, Coconino, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Navajo, AZ.
Wilton Miwok Rancheria	Sacramento, CA.[58]
Winnebago Tribe of Nebraska	Dakota, NE, Dixon, NE, Monona, IA, Thurston, NE, Wayne, NE, Woodbury, IA.
Yankton Sioux Tribe of South Dakota	Bon Homme, SD, Boyd, NE, Charles Mix, SD, Douglas, SD, Gregory, SD, Hutchinson, SD Knox, NE.
Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona.	Yavapai, AZ.
Yavapai-Prescott Tribe of the Yavapai Reservation, Arizona	Yavapai, AZ.
Ysleta Del Sur Pueblo of Texas	El Paso, TX.[98]
Zuni Tribe of the Zuni Reservation, New Mexico	Apache, AZ, Cibola, NM, McKinley, NM, Valencia, NM.

[1] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for ''members of the Tribe'' by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

[2] Entire State of Alaska is included as a CHSDA by regulation (42 CFR 136.22(a)(1)).

[3] Aroostook Band of Micmac was recognized by Congress on November 26, 1991 through the Aroostook Band of Micmac Settlement Act. Aroostook County was defined as the SDA.

[4] Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Brigham City (Pub. L. 88–358).

[5] Entire State of California, excluding counties of Alameda, Contra Costa, Los Angeles, Marin, Orange, Sacramento, San Francisco, San Mateo, Santa Clara, Kern, Merced, Monterey, Napa, San Benito, San Joaquin, San Luis Obispo, Santa Cruz, Solano, Stanislaus, and Ventura, is designated a CHSDA (25 U.S.C. 1680).

[6] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[7] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[8] Historically part of the Coleville Service Unit population since 1970.

[9] Members of the Tribe residing in these counties were specified as eligible for Federal services and benefits without regard to the existence of a Federal Indian reservation (Pub. L. 98–481, and H. Rept. No. 98–904).

[10] Confederated Tribes of Grande Ronde Community of Oregon recognized by Public Law 98–165, signed into law on November 22, 1983, provides for eligibility in these six counties without regard to the existence of a reservation.

[11] In order to carry out the Congressional intent of the Siletz Restoration Act, Public Law 95–195, as expressed in H. Report No. 95–623, at page 4, Siletz Tribal members residing in these counties are eligible for contract health services.

[12] Historically part of the Yakama Service Unit population since 1979.

[13] Contract Health Service Delivery Area expanded administratively by the Director, IHS, through regulation (42 CFR 136.22(6)) to include city limits of Elton, LA.

[14] Cow Creek Band of Umpqua Indians of Oregon recognized by Public Law 97–391, signed into law on December 29, 1983. House Rept. No. 97–862 designates Douglas, Jackson, and Josephine Counties as a service area without regard to the existence of a reservation. The IHS later exercised administrative discretion to add Coos, Deshutes, Klamath and Lane counties to the service delivery area.

[15] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638. It is proposed that Columbia County, OR, Kittitas, WA and Wahkiakum County, WAS be added to the existing SDA.

[16] Historically part of Crow Service Unit population.

[17] Historically part of the Grand Traverse Service Unit population since 1980.

[18] Historically part of Kansas Service Unit since 1979. Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Haskell (H. Rept. No. 95–392).

[19] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(5)).

[20] Public Law 97–428 provides for eligibility in or around the Town of Houlton without regard to existence of a reservation.

[21] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[22] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[23] Texas Band of Kickapoo was recognized by Public Law 97–429, signed into law on January 8, 1983. The Act provides for eligibility for Kickapoo Tribal members residing in Maverick County without regard to the existence of a reservation.

[24] Legislative history states that for the purpose of Federal services and benefits ''members of the tribe residing in Klamath County shall be deemed to be residing in or near a reservation''. (Pub. L. 99–398, Sec. 2(2)).

[25] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[26] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[27] Mashantucket Pequot Indian Claims Settlement Act, Public Law 98–134, signed into law on October 18, 1983, provides for a reservation in New London.

[28] This is a newly recognized Tribe, as documented at 72 FR 8007, February 22, 2007. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[29] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[30] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[31] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[32] Historically part of the Choctaw Service Unit population since 1970.

[33] Narragansett Indians recognized by Public Law 95–395, signed into law September 30, 1978. Lands in Washington County are now Federally restricted and the Bureau of Indian Affairs considers them as the Narragansett Indian Reservation.

[34] Entire State of Nevada is included as a CHSDA by regulation (42 CFR 136.22 (a)(2)).

[35] Historically part of the Northern Cheyenne Service Unit population since 1979.

[36] Land of Box Elder County, Utah, taken into trust for the Tribe in 1986.

[37] Washabaugh County, SD is part of Jackson County, SD, on November 5, 1968.

[38] Entire State of Oklahoma is included as a CHSDA by regulation (42 CFR 136.22 (a)(3)).

[39] Paiute Indian Tribe of Utah Reservation Act, Public Law 96–227, provides for the extension of services to these four counties without regard to the existence of a reservation.

[40] Legislative history (H.R. Report No. 95–1021) to Public Law 95–375, Extension of Federal Benefits to Pascua Yaqui Indians, Arizona, expresses congressional intent that lands conveyed to the Tribes pursuant to Act of October 8, 1964. (Pub. L. 88–350) shall be deemed a Federal Indian Reservation.

[41] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[42] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[43] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[44] Counties in the Service Unit designated by Congress for the Poarch Band of Creek Indians (see H. Rept. 98–886, June 29, 1984; Cong. Record, October 10, 1984, Pg. H11929).

[45] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[46] Ponca Restoration Act, Public Law 101–484, recognized members of the Tribe residing in Boyd, Douglas, Knox, Madison or Lancaster counties of Nebraska or Charles Mix county of South Dakota shall be deemed to be residing on or near a reservation. Public Law 104–109 added Burt, Hall, Holt, Platte, Sarpy, Stanton, and Wayne counties of Nebraska and Pottawatomie and Woodbury counties of Iowa.

[48] Historically part of Isabella Reservation Area and Eastern Michigan Service Unit population since 1979.

[49] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[50] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(4)).

[51] This is a newly recognized Tribe, as documented at 75 FR 34760, June 18, 2010. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[52] Historically part of the Fort Hall Service Unit population since 1979.

[53] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[54] December 10, 2011 the Office of Assistant Secretary-Indian Affairs reaffirmed the federal relationship between the United States and the Tejon Indian Tribe. The IHS Director established the SDA for this newly CHSDA excluding certain counties, including Kern county.

[55] The Secretary acting through the Service is directed to provide contract health services to Turtle Mountain Band of Chippewa Indians that reside in Trenton Service Area of Divide, Mackenzie, and Williams counties in the state of North Dakota and the adjoining counties of Richland, Roosevelt, and Sheridan in the state of Montana (Sec. 815, Pub. L. 94–437).

[56] Historically part of the Tunica Biloxi Service Unit population since 1982.

[57] Members of the Tribe residing in Martha's Vineyard [are] deemed to be living "on or near an Indian reservation" for the purposes of eligibility for Federal services (Sec. 12, Pub. L.100–95).

[58] This is a newly restored Tribe, as documented at 74 FR 33468, July 13, 2009. Sacramento County was designated administratively as the SDA, to function as a CHSDA, for the Wilton Miwok Rancheria that was not covered by Congress' establishment of the State of California as a CHSDA excluding certain counties, including Sacramento County.

[59] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for "members of the Tribe" by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

September 5, 2013.

Yvette Roubideaux,

Acting Director, Indian Health Service.

[FR Doc. 2013–22094 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–16–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service

Notice of Service Delivery Area Designation for the Tejon Indian Tribe

AGENCY: Indian Health Service, Department of Health and Human Services..

ACTION: Notice.

SUMMARY: This Notice advises the public that the Indian Health Service (IHS) proposes the geographic boundaries of the Service Delivery Area (SDA) for the Tejon Indian Tribe. The Tribe's federal recognition was reaffirmed by the Assistant Secretary of Indian Affairs on December 30, 2011. The Tejon Indian Tribe's SDA is to be comprised of Kern County in the State of California. The county listed is designated administratively as the SDA, to function as a Contract Health Service Delivery Area (CHSDA), for the purpose of operating a Contract Health Service (CHS) program pursuant to the Indian Self-Determination and Education

Assistant Act (ISDEAA), Public Law 93–638.

DATES: This notice is effective 30 days after date of publication in the **Federal Register** (FR).

ADDRESSES: Comments may be mailed to Ms. Betty Gould, Regulations Officer, Indian Health Service, 801 Thompson Avenue, Suite 450, Rockville, Maryland 20852. Comments will be made available for public inspection at this address from 8:30 a.m. to 5:00 p.m. Monday–Friday beginning approximately two weeks after publication of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. Carl Harper, Director, Office of Resource Access and Partnerships, Indian Health Service, 801 Thompson Avenue, Suite 360, Rockville, Maryland 20852. Telephone 301/443–2694 (This is not a toll free number).

SUPPLEMENTAL INFORMATION: The IHS currently provides services under regulations in effect on September 15, 1987 and IHS republished at 42 CFR part 136, Subparts A–C. Many of the newly recognized/restored/reaffirmed Tribes do not have reservations and either Congress has legislatively designated counties to serve as SDAs or the Director, IHS, exercised reasonable administrative discretion to designate SDAs to effectuate the intent of Congress for these Tribes. The Director, IHS, published notice of the establishment of SDAs in the June 21, 2007 FR Notice (72 FR 34262–01). The SDAs function as CHSDAs for the purposes of operating a CHS program pursuant to the ISDEAA, Public Law 93–638. Thus, the CHSDA list incorporates the SDAs that operate as CHSDAs for newly recognized/restored/reaffirmed Tribes. At 42 CFR 136 Subpart C, a CHSDA is defined as the geographic area within which CHS will be made available by the IHS to members of an identified Indian community who reside in the area. Residence within a CHSDA by a person who is within the scope of the Indian health program, as set forth in 42 CFR 136.12, creates no legal entitlement to CHS but only potential eligibility for services. Services needed but not available at an IHS/Tribal facility are provided under the CHS program, depending on the availability of funds, the person's relative medical priority, and the actual availability and accessibility of alternate resources in accordance with the regulations. As applicable to the Tribes, these regulations provide that, unless otherwise designated, a CHSDA shall consist of a county which includes all or part of a reservation and any county or counties which have a common boundary with the reservation (42 CFR 136.22(a)(6) (2007).

On December 30, 2011, the Assistant Secretary of Indian Affairs reaffirmed the Federal recognition of the Tejon Indian Tribe and the government-to-government relationship between the United States and the Tribe. The Tejon Indian Tribe is located in Kern County in the State of California. After consultation with the Tribal governing body, the SDA for the Tribe was agreed upon. The purpose of this FR Notice is to notify the public that the IHS now administratively designates Kern County as the Tejon Indian Tribe's SDA. In California, Congress designated the entire state as a CHSDA, excluding certain counties (including Kern County) under section 810 of the Indian Healthcare Improvement Act, Public Law 94–437, as amended (25 U.S.C. 1680). The Director, IHS, may establish SDAs for the purpose of providing CHS for newly recognized/restored/reaffirmed Tribes that were not covered by Congress' establishment of certain counties in California as a CHSDA. These SDAs may include all or part of counties that are not included in the Congressional establishment.

Under 42 CFR 136.23, eligible Indians who do not reside on a reservation, but reside within a CHSDA, must be either members of the Tribe or maintain close economic and social ties with the Tribe. In this case, the Tribe estimated the eligible user population to be 377 enrolled Tejon Indian Tribal members who are actively involved with the Tribe.

This notice does not contain reporting or recordkeeping requirements subject to prior approval by the Office of Management and Budget under the Paperwork Reduction Act of 1980.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS

Tribe/reservation	County/state
Ak Chin Indian Community of the Maricopa (Ak Chin) Indian Reservation, Arizona.	Pinal, AZ.
Alabama-Coushatta Tribes of Texas	Polk, TX.[1]
Alaska	Entire State.[2]
Arapahoe Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Aroostook Band of Micmac Indians of Maine	Aroostook, ME.[3]
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana.	Daniels, MT, McCone, MT, Richland, MT, Roosevelt, MT, Sheridan, MT, Valley, MT.
Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin.	Ashland, WI, Iron, WI.
Bay Mills Indian Community, Michigan	Chippewa, MI.
Blackfeet Tribe of the Blackfeet Indian Reservation of Montana	Glacier, MT, Pondera, MT.
Minnesota Chippewa Tribe, Minnesota Bois Forte Band (Nett Lake)	Itasca, MN, Koochiching, MN, St. Louis, MN.
Brigham City Intermountain School Health Center, Utah	([4])
Burns Paiute Tribe of the Burns Paiute Indian Colony of Oregon	Harney, OR.
California	Entire State, except for the counties listed in the footnote.[5]
Catawba Indian Nation of South Carolina	All Counties in SC,[6] Cabarrus, NC, Cleveland, NC, Gaston, NC, Mecklenburg, NC, Rutherford, NC, Union, NC.
Cayuga Nation of New York	Allegany, NY,[7] Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota.	Corson, SD, Dewey, SD, Haakon, SD, Meade, SD, Perkins, SD, Potter, SD, Stanley, SD, Sully, SD, Walworth, SD, Ziebach, SD.
Chippewa-Cree Indians of the Rocky Boy's Reservation, Montana	Chouteau, MT, Hill, MT, Liberty, MT.
Chitimacha Tribe of Louisiana	St. Mary Parish, LA.
Cocopah Tribe of Arizona	Yuma, AZ, Imperial, CA.
Coeur D'Alene Tribe of the Coeur D'Alene Reservation, Idaho	Benewah, ID, Kootenai, ID, Latah, ID, Spokane, WA, Whitman, WA.
Colorado River Indian Tribes of the Colorado River Indian Reservation, Arizona and California.	La Paz, AZ, Riverside, CA, San Bernardino, CA, Yuma, AZ.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Confederated Salish & Kootenai Tribes of the Flathead Reservation, Montana.	Flathead, MT, Lake, MT, Missoula, MT, Sanders, MT.
Confederated Tribes of the Chehalis Reservation, Washington	Grays Harbor, WA, Lewis, WA, Thurston, WA.
Confederated Tribes of the Colville Reservation, Washington	Chelan, WA,[8] Douglas, WA, Ferry, WA, Grant, WA, Lincoln, WA, Okanogan, WA, Stevens, WA.
Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians of Oregon.	Coos, OR,[9] Curry, OR, Douglas, OR, Lane, OR, Lincoln, OR.
Confederated Tribes of the Goshute Reservation, Nevada and Utah	Nevada, Juab, UT, Toole, UT.
Confederated Tribes of Grand Ronde Community of Oregon	Polk, OR,[10] Washington, OR, Marion, OR, Yamhill, OR, Tillamook, OR, Multnomah, OR.
Confederated Tribes of the Siletz Reservation, Oregon	Benton, OR,[11] Clackamas, OR, Lane, OR, Lincoln, OR, Linn, OR, Marion, OR, Multnomah, OR, Polk, OR, Tillamook, OR, Washington, OR, Yam Hill, OR.
Confederated Tribes of the Umatilla Reservation, Oregon	Umatilla, OR, Union, OR.
Confederated Tribes of the Warm Springs Reservation of Oregon	Clackamas, OR, Jefferson, OR, Linn, OR, Marion, OR, Wasco, OR.
Confederated Tribes & Bands of the Yakama Nation, Washington	Klickitat, WA, Lewis, WA, Skamania, WA,[12] Yakima, WA.
Coquille Tribe of Oregon	Coos, OR, Curry, OR, Douglas, OR, Jackson, OR, Lane, OR.
Coushatta Tribe of Louisiana	Allen Parish, LA, Elton, LA.[13]
Cow Creek Band of Umpqua Indians of Oregon	Coos, OR,[14] Deshutes, OR, Douglas, OR, Jackson, OR, Josephine, OR, Klamath, OR, Lane, OR.
Cowlitz Indian Tribe, Washington	Clark, WA, Cowlitz, WA, King, WA, Lewis, WA, Pierce, WA, Skamania, WA, Thurston, WA, Columbia, OR, Kittitas, WA, Wahkiakum, WA.[15]
Crow Tribe of Montana	Big Horn, MT, Carbon, MT, Treasure, MT,[16] Yellowstone, MT, Big Horn, WY, Sheridan, WY.
Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota	Brule, SD, Buffalo, SD, Hand, SD, Hughes, SD, Hyde, SD, Lyman, SD, Stanley, SD.
Eastern Band of Cherokee Indians of North Carolina	Cherokee, NC, Graham, NC, Haywood, NC, Jackson, NC, Swain, NC.
Flandreau Santee Sioux Tribe of South Dakota	Moody, SD.
Fond du Lac Band of Chippewa Indians of Minnesota	Carlton, MN, St. Louis, MN.
Forest County Potawatomi Community, Wisconsin	Forest, WI, Marinette, WI, Oconto, WI.
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana.	Blaine, MT, Phillips, MT.
Fort McDermitt Paiute and Shoshone Tribes of the Fort McDermitt Indian Reservation, Nevada and Oregon.	Nevada, Malheur, OR.
Fort McDowell Yavapai Nation, Arizona	Maricopa, AZ.
Fort Mojave Indian Tribe of Arizona, California and Nevada	Nevada, Mohave, AZ, San Bernardino, CA.
Gila River Indian Community of the Gila River Indian Reservation, Arizona.	Maricopa, AZ, Pinal, AZ.
Grand Portage Band of Chippewa Indians of Minnesota	Cook, MN.
Grand Traverse Band of Ottawa & Chippewa Indians of Michigan	Antrim, MI,[17] Benzie, MI, Charlevoix, MI, Grand Traverse, MI, Leelanau, MI, Manistee, MI.
Hannahville Indian Community, Michigan	Delta, MI, Menominee, MI.
Haskell Indian Health Center	Douglas, KS.[18]
Havasupai Tribe of the Havasupai Reservation, Arizona	Coconino, AZ.
Ho-Chunk Nation of Wisconsin	Adams, WI,[19] Clark, WI, Columbia, WI, Crawford, WI, Dane, WI, Eau Claire, WI, Houston, MN, Jackson, WI, Juneau, WI, La Crosse, WI, Marathon, WI, Monroe, WI, Sauk, WI, Shawano, WI, Vernon, WI, Wood, WI.
Hoh Indian Tribe of the Hoh Indian Reservation, Washington	Jefferson, WA.
Hopi Tribe of Arizona	Apache, AZ, Coconino, AZ, Navajo, AZ.
Houlton Band of Maliseet Indians of Maine	Aroostook, ME.[20]
Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona	Coconino, AZ, Mohave, AZ, Yavapai, AZ.
Huron Potawatomi, Inc., Michigan	Allegan, MI,[21] Barry, MI, Branch, MI, Calhoun, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Iowa Tribe of Kansas and Nebraska	Brown, KS, Doniphan, KS, Richardson, NE.
Jamestown S'Klallam Tribe of Washington	Clallam, WA, Jefferson, WA.
Jena Band of Choctaw Indians, Louisiana	Grand Parish, LA,[22] LaSalle Parish, LA, Rapides Parish, LA.
Jicarilla Apache Nation, New Mexico	Archuleta, CO, Rio Arriba, NM, Sandoval, NM.
Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona.	Coconino, AZ, Mohave, AZ, Kane, UT.
Kalispel Indian Community of the Kalispel Indian Reservation, Washington.	Pend Oreille, WA, Spokane, WA.
Keweenaw Bay Indian Community, Michigan	Baraga, MI, Houghton, MI, Ontonagon, MI.
Kickapoo Tribe of Indians of the Kickapoo Reservation of Kansas	Brown, KS, Jackson, KS.
Kickapoo Traditional Tribe of Texas	Maverick, TX.[23]
Klamath Tribes of Oregon	Klamath, OR.[24]
Kootenai Tribe of Idaho	Boundary, ID.
Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin.	Sawyer, WI.
Lac du Flambeau Band of Lake Superior Chippewa Indians of the Lac du Flambeau Reservation of Wisconsin..	Iron, WI, Oneida, WI, Vilas, WI.
Lac Vieux Desert Band of Lake Superior Chippewa Indians, Michigan	Gogebic, MI.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Leech Lake Band of Chippewa Indians of Minnesota	Beltrami, MN, Cass, MN, Hubbard, MN, Itasca, MN.
Little River Band of Ottawa Indians, Michigan	Kent, MI,[25] Muskegon, MI, Newaygo, MI, Oceana, MI, Ottawa, MI, Manistee, MI, Mason, MI, Wexford, MI, Lake, MI.
Little Traverse Bay Bands of Odawa Indians, Michigan	Alcona, MI,[26] Alger, MI, Alpena, MI, Antrim, MI, Benzie, MI, Charlevoix, MI, Cheboygan, MI, Chippewa, MI, Crawford, MI, Delta, MI, Emmet, MI, Grand Traverse, MI, Iosco, MI, Kalkaska, MI, Leelanau, MI, Luce, MI, Mackinac, MI, Manistee, MI, Missaukee, MI, Montmorency, MI, Ogemaw, MI, Oscoda, MI, Otsego, MI, Presque Isle, MI, Schoolcraft, MI, Roscommon, MI, Wexford, MI.
Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota	Brule, SD, Buffalo, SD, Hughes, SD, Lyman, SD, Stanley, SD.
Lower Elwha Tribal Community of the Lower Elwha Reservation, Washington.	Clallam, WA.
Lower Sioux Indian Community in the State of Minnesota	Redwood, MN, Renville, MN.
Lummi Tribe of the Lummi Reservation, Washington	Whatcom, WA.
Makah Indian Tribe of the Makah Reservation, Washington	Clallam, WA.
Mashantucket Pequot Tribe of Connecticut	New London, CT.[27]
Mashpee Wampanoag	Barnstable, MA, Bristol, MA, Norfolk, MA, Plymouth, MA and Suffolk, MA.[28]
Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	Allegan, MI,[29] Barry, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Menominee Indian Tribe of Wisconsin	Langlade, WI, Menominee, WI, Oconto, WI, Shawano, WI.
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico	Chaves, NM, Lincoln, NM, Otero, NM.
Miccosukee Tribe of Indians of Florida	Broward, FL, Collier, FL, Miami-Dade, FL, Hendry, FL.
Mille Lacs Band of Chippewa Indians of Minnesota	Aitkin, MN, Kanebec, MN, Mille Lacs, MN, Pine, MN.
Mississippi Band of Choctaw Indians, Mississippi	Attala, MS, Jasper, MS,[30] Jones, MS Kemper, MS, Leake, MS, Neshoba, MS, Newton, MS, Noxubee, MS,[31] Scott, MS,[32] Winston, MS.
Mohegan Indian Tribe of Connecticut	Fairfield, CT, Hartford, CT, Litchfield, CT, Middlesex, CT, New Haven, CT, New London, CT, Tolland, CT, Windham, CT.
Muckleshoot Indian Tribe of the Muckleshoot Reservation, Washington	King, WA, Pierce, WA.
Narragansett Indian Tribe of Rhode Island	Washington, RI.[33]
Navajo Nation, Arizona, New Mexico and Utah	Apache, AZ, Bernalillo, NM, Cibola, NM, Coconino, AZ, Kane, UT, McKinley, NM, Montezuma, CO, Navajo, AZ, Rio Arriba, NM, Sandoval, NM, San Juan, NM, San Juan, UT, Socorro, NM, Valencia, NM.
Nevada	Entire State.[34]
Nez Perce Tribe of Idaho	Clearwater, ID, Idaho, ID, Latah, ID, Lewis, ID, Nez Perce, ID.
Nisqually Indian Tribe of the Nisqually Reservation, Washington	Pierce, WA, Thurston, WA.
Nooksack Indian Tribe of Washington	Whatcom, WA.
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana.	Big Horn, MT, Carter, MT,[35] Rosebud, MT.
Northwestern Band of Shoshoni Nation of Utah (Washakie)	Box Elder, UT.[36]
Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota	Bennett, SD, Cherry, NE, Custer, SD, Dawes, NE, Fall River, SD, Jackson, SD,[37] Mellete, SD, Pennington, SD, Shannon, SD, Sheridan, NE, Todd, SD.
Oklahoma	Entire State.[38]
Omaha Tribe of Nebraska	Burt, NE, Cuming, NE, Monona, IA, Thurston, NE, Wayne, NE.
Oneida Nation of New York	Chenango, NY, Cortland, NY, Herkimer, NY, Madison, NY, Oneida, NY, Onondaga, NY.
Oneida Tribe of Indians of Wisconsin	Brown, WI, Outagamie, WI.
Onondaga Nation of New York	Onondaga, NY.
Paiute Indian Tribe of Utah	Iron, UT,[39] Millard, UT, Sevier, UT, Washington, UT.
Pascua Yaqui Tribe of Arizona	Pima, AZ.[40]
Passamaquoddy Tribe of Maine	Aroostook, ME,[41] Washington, ME.
Passamaquoddy Tribe of Pleasant Point, Maine	Washington, ME, south of State Route.[42]
Penobscot Tribe of Maine	Aroostook, ME,[43] Penobscot, ME.
Poarch Band of Creek Indians of Alabama	Baldwin, AL,[44] Elmore, AL, Escambia, AL, Mobile, AL, Monroe, AL, Escambia, FL.
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Allegan, MI, Berrien, MI, Cass, MI, Elkhart, IN,[45] Kosciusko, IN, La Porte, IN, Marshall, IN, St. Joseph, IN, Starke, IN, Van Buren, MI.
Ponca Tribe of Nebraska	Boyd, NE,[46] Burt, NE, Charles Mix, SD, Douglas, NE, Hall, NE, Holt, NE, Knox, NE, Lancaster, NE, Madison, NE, Platte, NE, Pottawattomie, IA, Sarpy, NE, Stanton, NE, Wayne, NE, Woodbury, IA.
Port Gamble Indian Community of the Port Gamble Reservation, Washington.	Kitsap, WA.
Prairie Band of Potawatomi Nation, Kansas	Jackson, KS.
Prairie Island Indian Community in the State of Minnesota	Goodhue, MN.
Pueblo of Acoma, New Mexico.	Cibola, NM.
Pueblo of Cochiti, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Jemez, New Mexico	Sandoval, NM.
Pueblo of Isleta, New Mexico	Bernalillo, NM, Torrance, NM, Valencia, NM.
Pueblo of Laguna, New Mexico	Bernalillo, NM, Cibola, NM, Sandoval, NM, Valencia, NM.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Pueblo of Nambe, New Mexico	Santa Fe, NM.
Pueblo of Picuris, New Mexico	Taos, NM.
Pueblo of Pojoaque, New Mexico	Rio Arriba, NM, Santa Fe, NM.
Pueblo of San Felipe, New Mexico	Sandoval, NM.
Pueblo of San Ildefonso, New Mexico	Los Alamos, NM, Rio Arriba, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of San Juan, New Mexico	Rio Arriba, NM.
Pueblo of Sandia, New Mexico	Bernalillo, NM, Sandoval, NM.
Pueblo of Santa Ana, New Mexico	Sandoval, NM.
Pueblo of Santa Clara, New Mexico	Los Alamos, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of Santo Domingo, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Taos, New Mexico	Colfax, NM, Taos, NM.
Pueblo of Tesuque, New Mexico	Santa Fe, NM.
Pueblo of Zia, New Mexico	Sandoval, NM.
Puyallup Tribe of the Puyallup Reservation, Washington	King, WA, Pierce, WA, Thurston, WA.
Quechan Tribe of the Fort Yuma Indian Reservation, California and Arizona.	Yuma, AZ, Imperial, CA.
Quileute Tribe of the Quileute Reservation, Washington	Clallam, WA, Jefferson, WA.
Quinault Tribe of the Quinault Reservation, Washington	Grays Harbor, WA, Jefferson, WA.
Rapid City, South Dakota	Pennington, SD.[47]
Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin	Bayfield, WI.
Red Lake Band of Chippewa Indians, Minnesota	Beltrami, MN, Clearwater, MN, Koochiching, MN, Lake of the Woods, MN, Marshall, MN, Pennington, MN, Polk, MN, Roseau, MN.
Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota	Bennett, SD, Cherry, NE, Gregory, SD, Lyman, SD, Mellette, SD, Todd, SD, Tripp, SD.
Sac & Fox Tribe of the Mississippi in Iowa	Tama, IA.
Sac & Fox Nation of Missouri in Kansas & Nebraska	Brown, KS, Richardson, NE.
Saginaw Chippewa Indian Tribe of Michigan	Arenac, MI,[48] Clare, MI, Isabella, MI, Midland, MI, Missaukee, MI.
St. Croix Chippewa Indians of Wisconsin	Barron, WI, Burnett, WI, Pine, MN, Polk, WI, Washburn, WI.
Saint Regis Mohawk Tribe, New York	Franklin, NY, St. Lawrence, NY.
Salt River Pima-Maricopa Indian Community of Salt River Reservation, Arizona.	Maricopa, AZ.
Samish Indian Tribe, Washington	Clallam, WA,[49] Island, WA, Jefferson, WA, King, WA, Kitsap, WA, Pierce, WA, San Juan, WA, Skagit, WA, Snohomish, WA, Whatcom, WA.
San Carlos Apache Tribe of the San Carlos Reservation, Arizona	Apache, AZ, Cochise, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Pinal, AZ.
San Juan Southern Paiute Tribe of Arizona	Coconino, AZ, San Juan, UT.
Santee Sioux Nation, Nebraska	Bon Homme, SD, Knox, NE.
Sauk-Suiattle Indian Tribe of Washington	Snohomish, WA, Skagit, WA.
Sault Ste. Marie Tribe of Chippewa Indians of Michigan	Alger, MI,[50] Chippewa, MI, Delta, MI, Luce, MI, Mackinac, MI, Marquette, MI, Schoolcraft, MI.
Seminole Tribe of Florida	Broward, FL, Collier, FL, Miami-Dade, FL, Glades, FL, Hendry, FL.
Seneca Nation of New York	Allegany, NY, Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Shakopee Mdewakanton Sioux Community of Minnesota	Scott, MN.
Shinnecock Indian Nation	Nassau, NY,[51] Suffolk, NY.
Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation, Washington.	Pacific, WA.
Shoshone Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	Bannock, ID, Bingham, ID, Caribou, ID, Lemhi, ID,[52] Power, ID.
Shoshone-Paiute Tribes of the Duck Valley Reservation, Nevada	Nevada, Owyhee, ID.
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota.	Codington, SD, Day, SD, Grant, SD, Marshall, SD, Richland, ND, Roberts, SD, Sargent, ND, Traverse, MN.
Skokomish Indian Tribe of Skokomish Reservation, Washington	Mason, WA.
Skull Valley Band of Goshute Indians of Utah	Tooele, UT.
Snoqualmie Tribe, Washington	King, WA,[53] Snohomish, WA, Pierce, WA, Island, WA, Mason, WA.
Sokaogon Chippewa Community, Wisconsin	Forest, WI.
Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado	Archuleta, CO, La Plata, CO, Montezuma, CO, Rio Arriba, NM, San Juan, NM.
Spirit Lake Tribe, North Dakota	Benson, ND, Eddy, ND, Nelson, ND, Ramsey, ND.
Spokane Tribe of the Spokane Reservation, Washington	Ferry, WA, Lincoln, WA, Stevens, WA.
Squaxin Island Tribe of the Squaxin Island Reservation, Washington	Mason, WA.
Standing Rock Sioux Tribe of North and South Dakota	Adams, ND, Campbell, SD, Corson, SD, Dewey, SD, Emmons, ND, Grant, ND, Morton, ND, Perkins, SD, Sioux, ND, Walworth, SD, Ziebach, SD.
Stockbridge Munsee Community, Wisconsin	Menominee, WI, Shawano, WI.
Stillaguamish Tribe of Washington	Snohomish, WA.
Suquamish Indian Tribe of the Port Madison Reservation, Washington	Kitsap, WA.
Swinomish Indians of the Swinomish Reservation, Washington	Skagit, WA.
Tejon Indian Tribe	Kern, CA[54]
Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota	Dunn, ND, Mercer, ND, McKenzie, ND, McLean, ND, Mountrail, ND, Ward, ND.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Tohono O'odham Nation of Arizona	Maricopa, AZ, Pima, AZ, Pinal, AZ.
Tonawanda Band of Seneca Indians of New York	Genesee, NY, Erie, NY, Niagara, NY.
Tonto Apache Tribe of Arizona	Gila, AZ.
Trenton Service Unit, North Dakota and Montana	Divide, ND,[55] McKenzie, ND, Williams, ND, Richland, MT, Roosevelt, MT, Sheridan, MT.
Tulalip Tribes of the Tulalip Reservation, Washington	Snohomish, WA.
Tunica-Biloxi Indian Tribe of Louisiana	Avoyelles, LA, Rapides, LA.[56]
Turtle Mountain Band of Chippewa Indians of North Dakota	Rolette, ND.
Tuscarora Nation of New York	Niagara, NY.
Upper Sioux Community, Minnesota	Chippewa, MN, Yellow Medicine, MN.
Upper Skagit Indian Tribe of Washington	Skagit, WA.
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	Carbon, UT, Daggett, UT, Duchesne, UT, Emery, UT, Grand, UT, Rio Blanco, CO, Summit, UT, Uintah, UT, Utah, UT, Wasatch, UT.
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico and Utah.	Apache, AZ, La Plata, CO, Montezuma, CO, San Juan, NM, San Juan, UT.
Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts	Dukes, MA.[57]
Washoe Tribe of Nevada & California	Entire State of NV. Entire State of CA, except for the counties listed in footnote.
White Earth Band of Chippewa Indians of Minnesota	Becker, MN, Clearwater, MN, Mahnomen, MN, Norman, MN, Polk, MN.
White Mountain Apache Tribe of the Fort Apache Reservation, Arizona	Apache, AZ, Coconino, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Navajo, AZ.
Winnebago Tribe of Nebraska	Dakota, NE, Dixon, NE, Monona, IA, Thurston, NE, Wayne, NE, Woodbury, IA.
Yankton Sioux Tribe of South Dakota	Bon Homme, SD, Boyd, NE, Charles Mix, SD, Douglas, SD, Gregory, SD, Hutchinson, SD, Knox, NE.
Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona.	Yavapai, AZ.
Yavapai-Prescott Tribe of the Yavapai Reservation, Arizona	Yavapai, AZ.
Ysleta Del Sur Pueblo of Texas	El Paso, TX.[58]
Zuni Tribe of the Zuni Reservation, New Mexico	Apache, AZ, Cibola, NM, McKinley, NM, Valencia, NM

[1] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for ''members of the Tribe'' by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

[2] Entire State of Alaska is included as a CHSDA by regulation (42 CFR 136.22(a)(1)).

[3] Aroostook Band of Micmac was recognized by Congress on November 26, 1991 through the Aroostook Band of Micmac Settlement Act. Aroostook County was defined as the SDA.

[4] Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Brigham City (Pub. L. 88–358).

[5] Entire State of California, excluding counties of Alameda, Contra Costa, Los Angeles, Marin, Orange, Sacramento, San Francisco, San Mateo, Santa Clara, Kern, Merced, Monterey, Napa, San Benito, San Joaquin, San Luis Obispo, Santa Cruz, Solano, Stanislaus, and Ventura, is designated a CHSDA (25 U.S.C. 1680).

[6] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[7] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[8] Historically part of the Coleville Service Unit population since 1970.

[9] Members of the Tribe residing in these counties were specified as eligible for Federal services and benefits without regard to the existence of a Federal Indian reservation (Pub. L. 98–481, and H. Rept. No. 98–904).

[10] Confederated Tribes of Grande Ronde Community of Oregon recognized by Public Law 98–165, signed into law on November 22, 1983, provides for eligibility in these six counties without regard to the existence of a reservation.

[11] In order to carry out the Congressional intent of the Siletz Restoration Act, Public Law 95–195, as expressed in H. Report No. 95–623, at page 4, Siletz Tribal members residing in these counties are eligible for contract health services.

[12] Historically part of the Yakama Service Unit population since 1979.

[13] Contract Health Service Delivery Area expanded administratively by the Director, IHS, through regulation (42 CFR 136.22(6)) to include city limits of Elton, LA.

[14] Cow Creek Band of Umpqua Indians of Oregon recognized by Public Law 97–391, signed into law on December 29, 1983. House Rept. No. 97–862 designates Douglas, Jackson, and Josephine Counties as a service area without regard to the existence of a reservation. The IHS later exercised administrative discretion to add Coos, Deshutes, Klamath and Lane counties to the service delivery area.

[15] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638. It is proposed that Columbia County, OR, Kittitas, WA and Wahkiakum County, WAS be added to the existing SDA.

[16] Historically part of Crow Service Unit population.

[17] Historically part of the Grand Traverse Service Unit population since 1980.

[18] Historically part of Kansas Service Unit since 1979. Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Haskell (H. Rept. No. 95–392).

[19] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(5)).

[20] Public Law 97–428 provides for eligibility in or around the Town of Houlton without regard to existence of a reservation.

[21] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[22] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[23] Texas Band of Kickapoo was recognized by Public Law 97–429, signed into law on January 8, 1983.The Act provides for eligibility for Kickapoo Tribal members residing in Maverick County without regard to the existence of a reservation.

[24] Legislative history states that for the purpose of Federal services and benefits ''members of the tribe residing in Klamath County shall be deemed to be residing in or near a reservation''. (Pub. L. 99–398, Sec. 2(2)).

[25] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[26] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[27] Mashantucket Pequot Indian Claims Settlement Act, Public Law 98–134, signed into law on October 18, 1983, provides for a reservation in New London.

[28] This is a newly recognized Tribe, as documented at 72 FR 8007, February 22, 2007. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[29] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Pub. L. 93–638.

[30] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[31] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[32] Historically part of the Choctaw Service Unit population since 1970.

[33] Narragansett Indians recognized by Public Law 95–395, signed into law September 30, 1978. Lands in Washington County are now Federally restricted and the Bureau of Indian Affairs considers them as the Narragansett Indian Reservation.

[34] Entire State of Nevada is included as a CHSDA by regulation (42 CFR 136.22 (a)(2)).

[35] Historically part of the Northern Cheyenne Service Unit population since 1979.

[36] Land of Box Elder County, Utah, taken into trust for the Tribe in 1986.

[37] Washabaugh County, SD is part of Jackson County, SD, on November 5, 1968.

[38] Entire State of Oklahoma is included as a CHSDA by regulation (42 CFR 136.22 (a)(3)).

[39] Paiute Indian Tribe of Utah Reservation Act, Public Law 96–227, provides for the extension of services to these four counties without regard to the existence of a reservation.

[40] Legislative history (H.R. Report No. 95–1021) to Public Law 95–375, Extension of Federal Benefits to Pascua Yaqui Indians, Arizona, expresses congressional intent that lands conveyed to the Tribes pursuant to Act of October 8, 1964. (Pub. L. 88–350) shall be deemed a Federal Indian Reservation.

[41] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[42] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[43] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[44] Counties in the Service Unit designated by Congress for the Poarch Band of Creek Indians (see H. Rept. 98–886, June 29, 1984; Cong. Record, October 10, 1984, Pg. H11929).

[45] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[46] Ponca Restoration Act, Public Law 101–484, recognized members of the Tribe residing in Boyd, Douglas, Knox, Madison or Lancaster counties of Nebraska or Charles Mix county of South Dakota shall be deemed to be residing on or near a reservation. Public Law 104–109 added Burt, Hall, Holt, Platte, Sarpy, Stanton, and Wayne counties of Nebraska and Pottawatomie and Woodbury counties of Iowa.

[47] Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Rapid City.

[48] Historically part of Isabella Reservation Area and Eastern Michigan Service Unit population since 1979.

[49] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[50] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(4)).

[51] This is a newly recognized Tribe, as documented at 75 FR 34760, June 18, 2010. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[52] Historically part of the Fort Hall Service Unit population since 1979.

[53] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[54] December 10, 2011 the Office of Assistant Secretary-Indian Affairs reaffirmed the federal relationship between the United States and the Tejon Indian Tribe. The IHS Director established the SDA for this newly reaffirmed tribe that was not covered by Congress' establishment of the state of California as a CHSDA excluding certain counties, including Kern county.

[55] The Secretary acting through the Service is directed to provide contract health services to Turtle Mountain Band of Chippewa Indians that reside in Trenton Service Area of Divide, Mackenzie, and Williams counties in the state of North Dakota and the adjoining counties of Richland, Roosevelt, and Sheridan in the state of Montana (Sec. 815, Pub. L. 94–437).

[56] Historically part of the Tunica Biloxi Service Unit population since 1982.

[57] Members of the Tribe residing in Martha's Vineyard [are] deemed to be living "on or near an Indian reservation" for the purposes of eligibility for Federal services (Sec. 12, Pub. L. 100–95).

[58] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for "members of the Tribe" by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

Dated: September 5, 2013.

Yvette Roubideaux,

Acting Director, Indian Health Service.

[FR Doc. 2013–22095 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–16–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service

Notice of Service Delivery Area Designation for the Shinnecock Indian Nation

AGENCY: Indian Health Service, Department of Health and Human Services.

ACTION: Notice.

SUMMARY: This Notice advises the public that the Indian Health Service (IHS) proposes the geographic boundaries of the Service Delivery Area (SDA) for the newly recognized Shinnecock Indian Nation. The Shinnecock Indian Nation SDA is to be comprised of Nassau and Suffolk counties in the State of New York. The counties listed are designated administratively as the SDA, to function as a Contract Health Service Delivery Area (CHSDA), for the purposes of operating a Contract Health Service (CHS) program pursuant to the Indian

Self-Determination and Education Assistant Act (ISDEAA), Public Law 93–638.

DATES: This notice is effective 30 days after date of publication in the **Federal Register** (FR).

ADDRESSES: Comments may be mailed to Ms. Betty Gould, Regulations Officer, Indian Health Service, 801 Thompson Avenue, Suite 450, Maryland 20852. Comments will be made available for public inspection at this address from 8:30 a.m. to 5:00 p.m. Monday-Friday beginning approximately two weeks after publication of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. Carl Harper, Director, Office of Resource Access and Partnerships, Indian Health Service, 801 Thompson Avenue, Suite 360, Rockville, Maryland 20852. Telephone 301/443–2694 (This is not a toll free number).

SUPPLEMENTARY INFORMATION: The IHS currently provides services under regulations in effect on September 15, 1987 and IHS republished at 42 CFR part 136, Subparts A–C. Many of the newly recognized Tribes do not have reservations and either Congress has legislatively designated counties to serve as SDAs or the Director, IHS, exercised reasonable administrative discretion to designate SDAs to effectuate the intent of Congress for these Tribes. The Director, IHS, published notice of the establishment of SDAs in the June 21, 2007 FR Notice (72 FR 34262–01). The SDAs function as CHSDAs for the purposes of operating a CHS program pursuant to the ISDEAA, Public Law 93–638. Thus, the CHSDA list incorporates the SDAs that operate as CHSDAs for newly recognized Tribes. At 42 CFR 136 Subpart C, a CHSDA is defined as the geographic area within which CHS will be made available by the IHS to members of an identified Indian community who reside in the area. Residence within a CHSDA by a person who is within the scope of the Indian health program, as set forth in 42 CFR 136.12 creates no legal entitlement to contract health services but only potential eligibility for services. Services needed but not available at an IHS/Tribal facility are provided under the CHS program depending on the availability of funds, the person's relative medical priority, and the actual availability and accessibility of alternate resources in accordance with the regulations.

As applicable to the Tribes, these regulations provide that, unless otherwise designated, a CHSDA shall consist of a county which includes all or part of a reservation and any county or counties which have a common boundary with the reservation (42 CFR 136.22(a)(6) (2007). In the **Federal Register** on June 18, 2010 (75 FR 34760), the Shinnecock Indian Nation was officially recognized as an Indian Tribe within the meaning of Federal law. After consultation with the Tribal governing body, the SDA for the Tribe was agreed upon. The purpose of this FR notice is to notify the public of the Shinnecock Indian Nation SDA to incorporate Nassau and Suffolk counties in the State of New York.

Under 42 CFR 136.23 those otherwise eligible Indians who do not reside on a reservation but reside within a CHSDA must be either members of the Tribe or maintain close economic and social ties with the Tribe. In this case, the Tribe estimated the eligible user population to be 2,269 enrolled Shinnecock Indian Nation members who are actively involved with the Tribe.

The Shinnecock Indian Nation is located in the Town of Southampton, Suffolk County, New York, on the East End of Long Island. A significant number of the Shinnecock Indian Nation SDA eligible user population also resides in Nassau County in the State of New York. Nassau and Suffolk counties are not part of any other Tribe's CHSDA or SDA.

This notice does not contain reporting or recordkeeping requirements subject to prior approval by the Office of Management and Budget under the Paperwork Reduction Act of 1980.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS

Tribe/reservation	County/state
Ak Chin Indian Community of the Maricopa (Ak Chin) Indian Reservation, Arizona.	Pinal, AZ.
Alabama-Coushatta Tribes of Texas	Polk, TX.[1]
Alaska	Entire State.[2]
Arapahoe Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Aroostook Band of Micmac Indians of Maine	Aroostook, ME.[3]
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana.	Daniels, MT, McCone, MT, Richland, MT, Roosevelt, MT, Sheridan, MT, Valley, MT.
Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin.	Ashland, WI, Iron, WI.
Bay Mills Indian Community, Michigan	Chippewa, MI.
Blackfeet Tribe of the Blackfeet Indian Reservation of Montana	Glacier, MT, Pondera, MT.
Minnesota Chippewa Tribe, Minnesota, Bois Forte Band (Nett Lake)	Itasca, MN, Koochiching, MN, St. Louis, MN.
Brigham City Intermountain School Health Center, Utah	([4])
Burns Paiute Tribe of the Burns Paiute Indian Colony, of Oregon	Harney, OR.
California	Entire State, except for the counties listed in the footnote.[5]
Catawba Indian Nation of South Carolina	All Counties in SC,[6] Cabarrus, NC, Cleveland, NC, Gaston, NC, Mecklenburg, NC, Rutherford, NC, Union, NC.
Cayuga Nation of New York	Allegany, NY,[7] Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota.	Corson, SD, Dewey, SD, Haakon, SD, Meade, SD, Perkins, SD, Potter, SD, Stanley, SD, Sully, SD, Walworth, SD, Ziebach, SD.
Chippewa-Cree Indians of the Rocky Boy's Reservation, Montana	Chouteau, MT, Hill, MT, Liberty, MT.
Chitimacha Tribe of Louisiana	St. Mary Parish, LA.
Cocopah Tribe of Arizona	Yuma, AZ, Imperial, CA.
Coeur D'Alene Tribe of the Coeur D'Alene Reservation, Idaho	Benewah, ID, Kootenai, ID, Latah, ID, Spokane, WA, Whitman, WA.
Colorado River Indian Tribes of the Colorado River Indian Reservation, Arizona and California.	La Paz, AZ, Riverside, CA, San Bernardino, CA, Yuma, AZ.
Confederated Salish & Kootenai Tribes of the Flathead Reservation, Montana.	Flathead, MT, Lake, MT, Missoula, MT, Sanders, MT.
Confederated Tribes of the Chehalis Reservation, Washington	Grays Harbor, WA, Lewis, WA, Thurston, WA.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Confederated Tribes of the Colville Reservation, Washington	Chelan, WA,[8] Douglas, WA, Ferry, WA, Grant, WA, Lincoln, WA, Okanogan, WA, Stevens, WA.
Confederated Tribes of Coos, Lower Umpqua &, Siuslaw Indians of Oregon.	Coos, OR,[9] Curry, OR, Douglas, OR, Lane, OR, Lincoln, OR.
Confederated Tribes of the Goshute Reservation, Nevada and Utah	Nevada, Juab, UT, Toole, UT.
Confederated Tribes of Grand Ronde Community of Oregon	Polk, OR,[10] Washington, OR, Marion, OR, Yamhill, OR, Tillamook, OR, Multnomah, OR.
Confederated Tribes of the Siletz Reservation, Oregon	Benton, OR,[11] Clackamas, OR, Lane, OR, Lincoln, OR, Linn, OR, Marion, OR, Multnomah, OR, Polk, OR, Tillamook, OR, Washington, OR, Yam Hill, OR.
Confederated Tribes of the Umatilla Reservation, Oregon	Umatilla, OR, Union, OR.
Confederated Tribes of the Warm Springs Reservation of Oregon	Clackamas, OR, Jefferson, OR, Linn, OR, Marion, OR, Wasco, OR.
Confederated Tribes & Bands of the Yakama Nation, Washington	Klickitat, WA, Lewis, WA, Skamania, WA,[12] Yakima, WA.
Coquille Tribe of Oregon	Coos, OR, Curry, OR, Douglas, OR, Jackson, OR, Lane, OR.
Coushatta Tribe of Louisiana	Allen Parish, LA, Elton, LA.[13]
Cow Creek Band of Umpqua Indians of Oregon	Coos, OR,[14] Deshutes, OR, Douglas, OR, Jackson, OR, Josephine, OR, Klamath, OR, Lane, OR.
Cowlitz Indian Tribe, Washington	Clark, WA, Cowlitz, WA, King, WA, Lewis, WA, Pierce, WA, Skamania, WA, Thurston, WA, Columbia, OR, Kittitas, WA, Wahkiakum, WA.[15]
Crow Tribe of Montana	Big Horn, MT, Carbon, MT, Treasure, MT,[16] Yellowstone, MT, Big Horn, WY, Sheridan, WY.
Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota	Brule, SD, Buffalo, SD, Hand, SD, Hughes, SD, Hyde, SD, Lyman, SD, Stanley, SD.
Eastern Band of Cherokee Indians of North Carolina	Cherokee, NC, Graham, NC, Haywood, NC, Jackson, NC, Swain, NC.
Flandreau Santee Sioux Tribe of South Dakota	Moody, SD.
Fond du Lac Band of Chippewa Indians of Minnesota	Carlton, MN, St. Louis, MN.
Forest County Potawatomi Community, Wisconsin	Forest, WI, Marinette, WI, Oconto, WI.
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana.	Blaine, MT, Phillips, MT.
Fort McDermitt Paiute and Shoshone Tribes of the Fort McDermitt Indian Reservation, Nevada and Oregon.	Nevada, Malheur, OR.
Fort McDowell Yavapai Nation, Arizona	Maricopa, AZ.
Fort Mojave Indian Tribe of Arizona, California and Nevada	Nevada, Mohave, AZ, San Bernardino, CA.
Gila River Indian Community of the Gila River Indian Reservation, Arizona.	Maricopa, AZ, Pinal, AZ.
Grand Portage Band of Chippewa Indians of Minnesota	Cook, MN.
Grand Traverse Band of Ottawa & Chippewa Indians of Michigan	Antrim, MI,[17] Benzie, MI, Charlevoix, MI, Grand Traverse, MI, Leelanau, MI, Manistee, MI.
Hannahville Indian Community, Michigan	Delta, MI, Menominee, MI.
Haskell Indian Health Center	Douglas, KS.[18]
Havasupai Tribe of the Havasupai Reservation, Arizona	Coconino, AZ.
Ho-Chunk Nation of Wisconsin	Adams, WI,[19] Clark, WI, Columbia, WI, Crawford, WI, Dane, WI, Eau Claire, WI, Houston, MN, Jackson, WI, Juneau, WI, La Crosse, WI, Marathon, WI, Monroe, WI, Sauk, WI, Shawano, WI, Vernon, WI, Wood, WI.
Hoh Indian Tribe of the Hoh Indian Reservation, Washington	Jefferson, WA.
Hopi Tribe of Arizona	Apache, AZ, Coconino, AZ, Navajo, AZ.
Houlton Band of Maliseet Indians of Maine	Aroostook, ME.[20]
Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona	Coconino, AZ, Mohave, AZ, Yavapai, AZ.
Huron Potawatomi, Inc., Michigan	Allegan, MI,[21] Barry, MI, Branch, MI, Calhoun, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Iowa Tribe of Kansas and Nebraska	Brown, KS, Doniphan, KS, Richardson, NE.
Jamestown S'Klallam Tribe of Washington	Clallam, WA, Jefferson, WA.
Jena Band of Choctaw Indians, Louisiana	Grand Parish, LA,[22] LaSalle Parish, LA, Rapides Parish, LA.
Jicarilla Apache Nation, New Mexico	Archuleta, CO, Rio Arriba, NM, Sandoval, NM.
Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona.	Coconino, AZ, Mohave, AZ, Kane, UT.
Kalispel Indian Community of the Kalispel Indian Reservation, Washington.	Pend Oreille, WA, Spokane, WA.
Keweenaw Bay Indian Community, Michigan	Baraga, MI, Houghton, MI, Ontonagon, MI.
Kickapoo Tribe of Indians of the Kickapoo Reservation of Kansas	Brown, KS, Jackson, KS.
Kickapoo Traditional Tribe of Texas	Maverick, TX.[23]
Klamath Tribes of Oregon	Klamath, OR.[24]
Kootenai Tribe of Idaho	Boundary, ID.
Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin.	Sawyer, WI.
Lac du Flambeau Band of Lake Superior Chippewa Indians of the Lac du Flambeau Reservation of Wisconsin.	Iron, WI, Oneida, WI, Vilas, WI.
Lac Vieux Desert Band of Lake Superior Chippewa Indians, Michigan	Gogebic, MI.
Leech Lake Band of Chippewa Indians of Minnesota	Beltrami, MN, Cass, MN, Hubbard, MN, Itasca, MN.
Little River Band of Ottawa Indians, Michigan	Kent, MI,[25] Muskegon, MI, Newaygo, MI, Oceana, MI, Ottawa, MI, Manistee, MI, Mason, MI, Wexford, MI, Lake, MI.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Little Traverse Bay Bands of Odawa Indians, Michigan	Alcona, MI,[26] Alger, MI, Alpena, MI, Antrim, MI, Benzie, MI, Charlevoix, MI, Cheboygan, MI, Chippewa, MI, Crawford, MI, Delta, MI, Emmet, MI, Grand Traverse, MI, Iosco, MI, Kalkaska, MI, Leelanau, MI, Luce, MI, Mackinac, MI, Manistee, MI, Missaukee, MI, Montmorency, MI, Ogemaw, MI, Oscoda, MI, Otsego, MI, Presque Isle, MI, Schoolcraft, MI, Roscommon, MI, Wexford, MI.
Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota	Brule, SD, Buffalo, SD, Hughes, SD, Lyman, SD, Stanley, SD.
Lower Elwha Tribal Community of the Lower Elwha Reservation, Washington.	Clallam, WA.
Lower Sioux Indian Community in the State of Minnesota	Redwood, MN, Renville, MN.
Lummi Tribe of the Lummi Reservation, Washington	Whatcom, WA.
Makah Indian Tribe of the Makah Reservation, Washington	Clallam, WA.
Mashantucket Pequot Tribe of Connecticut	New London, CT.[27]
Mashpee Wampanoag	Barnstable, MA, Bristol, MA, Norfolk, MA, Plymouth, MA and Suffolk, MA.[28]
Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	Allegan, MI,[29] Barry, MI, Kalamazoo, MI, Kent, MI, Ottawa, MI.
Menominee Indian Tribe of Wisconsin	Langlade, WI, Menominee, WI, Oconto, WI, Shawano, WI.
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico	Chaves, NM, Lincoln, NM, Otero, NM.
Miccosukee Tribe of Indians of Florida	Broward, FL, Collier, FL, Miami-Dade, FL, Hendry, FL.
Mille Lacs Band of Chippewa Indians of Minnesota	Aitkin, MN, Kanebec, MN, Mille Lacs, MN, Pine, MN.
Mississippi Band of Choctaw Indians, Mississippi	Attala, MS, Jasper, MS,[30] Jones, MS, Kemper, MS, Leake, MS, Neshoba, MS, Newton, MS, Noxubee, MS,[31] Scott, MS,[32] Winston, MS.
Mohegan Indian Tribe of Connecticut	Fairfield, CT, Hartford, CT, Litchfield, CT, Middlesex, CT, New Haven, CT, New London, CT, Tolland, CT, Windham, CT.
Muckleshoot Indian Tribe of the Muckleshoot Reservation, Washington	King, WA, Pierce, WA.
Narragansett Indian Tribe of Rhode Island	Washington, RI.[33]
Navajo Nation, Arizona, New Mexico and Utah	Apache, AZ, Bernalillo, NM, Cibola, NM, Coconino, AZ, Kane, UT, McKinley, NM, Montezuma, CO, Navajo, AZ, Rio Arriba, NM, Sandoval, NM, San Juan, NM, San Juan, UT, Socorro, NM, Valencia, NM.
Nevada	Entire State.[34]
Nez Perce Tribe of Idaho	Clearwater, ID, Idaho, ID, Latah, ID, Lewis, ID, Nez Perce, ID.
Nisqually Indian Tribe of the Nisqually Reservation, Washington	Pierce, WA, Thurston, WA.
Nooksack Indian Tribe of Washington	Whatcom, WA.
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana.	Big Horn, MT, Carter, MT,[35] Rosebud, MT.
Northwestern Band of Shoshoni Nation of Utah (Washakie)	Box Elder, UT.[36]
Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota	Bennett, SD, Cherry, NE, Custer, SD, Dawes, NE, Fall River, SD, Jackson, SD,[37] Mellete, SD, Pennington, SD, Shannon, SD, Sheridan, NE, Todd, SD.
Oklahoma	Entire State.[38]
Omaha Tribe of Nebraska	Burt, NE, Cuming, NE, Monona, IA, Thurston, NE, Wayne, NE.
Oneida Nation of New York	Chenango, NY, Cortland, NY, Herkimer, NY, Madison, NY, Oneida, NY, Onondaga, NY.
Oneida Tribe of Indians of Wisconsin	Brown, WI, Outagamie, WI.
Onondaga Nation of New York	Onondaga, NY.
Paiute Indian Tribe of Utah	Iron, UT,[39] Millard, UT, Sevier, UT, Washington, UT.
Pascua Yaqui Tribe of Arizona	Pima, AZ.[40]
Passamaquoddy Tribe of Maine	Aroostook, ME,[41] Washington, ME.
Passamaquoddy Tribe of Pleasant Point, Maine	Washington, ME, south of State Route.[42]
Penobscot Tribe of Maine	Aroostook, ME,[43] Penobscot, ME.
Poarch Band of Creek Indians of Alabama	Baldwin, AL,[44] Elmore, AL, Escambia, AL, Mobile, AL, Monroe, AL, Escambia, FL.
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Allegan, MI, Berrien, MI, Cass, MI, Elkhart, IN,[45] Kosciusko, IN, La Porte, IN, Marshall, IN, St. Joseph, IN, Starke, IN, Van Buren, MI.
Ponca Tribe of Nebraska	Boyd, NE,[46] Burt, NE, Charles Mix, SD, Douglas, NE, Hall, NE, Holt, NE, Knox, NE, Lancaster, NE, Madison, NE, Platte, NE, Pottawattomie, IA, Sarpy, NE, Stanton, NE, Wayne, NE, Woodbury, IA.
Port Gamble Indian Community of the Port Gamble Reservation, Washington.	Kitsap, WA.
Prairie Band of Potawatomi Nation, Kansas	Jackson, KS.
Prairie Island Indian Community in the State of Minnesota	Goodhue, MN.
Pueblo of Acoma, New Mexico	Cibola, NM.
Pueblo of Cochiti, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Jemez, New Mexico	Sandoval, NM.
Pueblo of Isleta, New Mexico	Bernalillo, NM, Torrance, NM, Valencia, NM.
Pueblo of Laguna, New Mexico	Bernalillo, NM, Cibola, NM, Sandoval, NM, Valencia, NM.
Pueblo of Nambe, New Mexico	Santa Fe, NM.
Pueblo of Picuris, New Mexico	Taos, NM.
Pueblo of Pojoaque, New Mexico	Rio Arriba, NM, Santa Fe, NM.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Pueblo of San Felipe, New Mexico	Sandoval, NM.
Pueblo of San Ildefonso, New Mexico	Los Alamos, NM, Rio Arriba, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of San Juan, New Mexico	Rio Arriba, NM.
Pueblo of Sandia, New Mexico	Bernalillo, NM, Sandoval, NM.
Pueblo of Santa Ana, New Mexico	Sandoval, NM.
Pueblo of Santa Clara, New Mexico	Los Alamos, NM, Sandoval, NM, Santa Fe, NM.
Pueblo of Santo Domingo, New Mexico	Sandoval, NM, Santa Fe, NM.
Pueblo of Taos, New Mexico	Colfax, NM, Taos, NM.
Pueblo of Tesuque, New Mexico	Santa Fe, NM.
Pueblo of Zia, New Mexico	Sandoval, NM.
Puyallup Tribe of the Puyallup Reservation, Washington	King, WA, Pierce, WA, Thurston, WA.
Quechan Tribe of the Fort Yuma Indian Reservation, California and Arizona.	Yuma, AZ, Imperial, CA.
Quileute Tribe of the Quileute Reservation, Washington	Clallam, WA, Jefferson, WA.
Quinault Tribe of the Quinault Reservation, Washington	Grays Harbor, WA, Jefferson, WA.
Rapid City, South Dakota	Pennington, SD.[47]
Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin	Bayfield, WI.
Red Lake Band of Chippewa Indians, Minnesota	Beltrami, MN, Clearwater, MN, Koochiching, MN, Lake of the Woods, MN, Marshall, MN, Pennington, MN, Polk, MN, Roseau, MN.
Rosebud Sioux Tribe of the Rosebud Indian Reservation. South Dakota	Bennett, SD, Cherry, NE, Gregory, SD, Lyman, SD, Mellette, SD, Todd, SD, Tripp, SD.
Sac & Fox Tribe of the Mississippi in Iowa	Tama, IA.
Sac & Fox Nation of Missouri in Kansas & Nebraska	Brown, KS, Richardson, NE.
Saginaw Chippewa Indian Tribe of Michigan	Arenac, MI,[48] Clare, MI, Isabella, MI, Midland, MI, Missaukee, MI.
St. Croix Chippewa Indians of Wisconsin	Barron, WI, Burnett, WI, Pine, MN, Polk, WI, Washburn, WI.
Saint Regis Mohawk Tribe, New York	Franklin, NY, St. Lawrence, NY.
Salt River Pima-Maricopa Indian Community of, Salt River Reservation, Arizona.	Maricopa, AZ.
Samish Indian Tribe, Washington	Clallam, WA,[49] Island, WA, Jefferson, WA, King, WA, Kitsap, WA, Pierce, WA, San Juan, WA, Skagit, WA, Snohomish, WA, Whatcom, WA.
San Carlos Apache Tribe of the San Carlos Reservation, Arizona	Apache, AZ, Cochise, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Pinal, AZ.
San Juan Southern Paiute Tribe of Arizona	Coconino, AZ, San Juan, UT.
Santee Sioux Nation, Nebraska	Bon Homme, SD, Knox, NE.
Sauk-Suiattle Indian Tribe of Washington	Snohomish, WA, Skagit, WA.
Sault Ste. Marie Tribe of Chippewa Indians of Michigan	Alger, MI,[50] Chippewa, MI, Delta, MI, Luce, MI, Mackinac, MI, Marquette, MI, Schoolcraft, MI.
Seminole Tribe of Florida	Broward, Fl, Collier, Fl, Miami-Dade, FL, Glades, FL, Hendry, FL.
Seneca Nation of New York	Allegany, NY, Cattaraugus, NY, Chautauqua, NY, Erie, NY, Warren, PA.
Shakopee Mdewakanton Sioux Community of Minnesota	Scott, MN.
Shinnecock Indian Nation	Nassau, NY,[51] Suffolk, NY.
Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation, Washington.	Pacific, WA.
Shoshone Tribe of the Wind River Reservation, Wyoming	Hot Springs, WY, Fremont, WY, Sublette, WY.
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	Bannock, ID, Bingham, ID, Caribou, ID, Lemhi, ID,[52] Power, ID.
Shoshone-Paiute Tribes of the Duck Valley Reservation, Nevada	Nevada, Owyhee, ID.
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota.	Codington, SD, Day, SD, Grant, SD, Marshall, SD, Richland, ND, Roberts, SD, Sargent, ND, Traverse, MN.
Skokomish Indian Tribe of Skokomish Reservation, Washington	Mason, WA.
Skull Valley Band of Goshute Indians of Utah	Tooele, UT.
Snoqualmie Tribe, Washington	King, WA,[53] Snohomish, WA, Pierce, WA, Island, WA, Mason, WA.
Sokaogon Chippewa Community, Wisconsin	Forest, WI.
Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado	Archuleta, CO, La Plata, CO, Montezuma, CO, Rio Arriba, NM, San Juan, NM.
Spirit Lake Tribe, North Dakota	Benson, ND, Eddy, ND, Nelson, ND, Ramsey, ND.
Spokane Tribe of the Spokane Reservation, Washington	Ferry, WA, Lincoln, WA, Stevens, WA.
Squaxin Island Tribe of the Squaxin Island Reservation, Washington	Mason, WA.
Standing Rock Sioux Tribe of North and South Dakota	Adams, ND, Campbell, SD, Corson, SD, Dewey, SD, Emmons, ND, Grant, ND, Morton, ND, Perkins, SD, Sioux, ND, Walworth, SD, Ziebach, SD.
Stockbridge Munsee Community, Wisconsin	Menominee, WI, Shawano, WI.
Stillaguamish Tribe of Washington	Snohomish, WA.
Suquamish Indian Tribe of the Port Madison Reservation, Washington	Kitsap, WA.
Swinomish Indians of the Swinomish Reservation, Washington	Skagit, WA.
Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota	Dunn, ND, Mercer, ND, McKenzie, ND, McLean, ND, Mountrail, ND, Ward, ND.
Tohono O'odham Nation of Arizona	Maricopa, AZ, Pima, AZ, Pinal, AZ.
Tonawanda Band of Seneca Indians of New York	Genesee, NY, Erie, NY, Niagara, NY.
Tonto Apache Tribe of Arizona	Gila, AZ.

CONTRACT HEALTH SERVICE DELIVERY AREAS AND SERVICE DELIVERY AREAS—Continued

Tribe/reservation	County/state
Trenton Service Unit, North Dakota and Montana	Divide, ND,[54] McKenzie, ND, Williams, ND, Richland, MT, Roosevelt, MT, Sheridan, MT.
Tulalip Tribes of the Tulalip Reservation, Washington	Snohomish, WA.
Tunica-Biloxi Indian Tribe of Louisiana	Avoyelles, LA, Rapides, LA.[55]
Turtle Mountain Band of Chippewa Indians of North Dakota	Rolette, ND.
Tuscarora Nation of New York	Niagara, NY.
Upper Sioux Community, Minnesota	Chippewa, MN, Yellow Medicine, MN.
Upper Skagit Indian Tribe of Washington	Skagit, WA.
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	Carbon, UT, Daggett, UT, Duchesne, UT, Emery, UT, Grand, UT, Rio Blanco, CO, Summit, UT, Uintah, UT, Utah, UT, Wasatch, UT.
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico and Utah.	Apache, AZ, La Plata, CO, Montezuma, CO, San Juan, NM, San Juan, UT.
Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts	Dukes, MA.[56]
Washoe Tribe of Nevada & California	Entire State of NV, Entire State of CA, except for the counties listed in footnote.
White Earth Band of Chippewa Indians of Minnesota	Becker, MN, Clearwater, MN, Mahnomen, MN, Norman, MN, Polk, MN.
White Mountain Apache Tribe of the Fort Apache Reservation, Arizona	Apache, AZ, Coconino, AZ, Gila, AZ, Graham, AZ, Greenlee, AZ, Navajo, AZ.
Winnebago Tribe of Nebraska	Dakota, NE, Dixon, NE, Monona, IA, Thurston, NE, Wayne, NE, Woodbury, IA.
Yankton Sioux Tribe of South Dakota	Bon Homme, SD, Boyd, NE, Charles Mix, SD, Douglas, SD, Gregory, SD, Hutchinson, SD, Knox, NE.
Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona.	Yavapai, AZ.
Yavapai-Prescott Tribe of the Yavapai Reservation, Arizona	Yavapai, AZ.
Ysleta Del Sur Pueblo of Texas	El Paso, TX.[57]
Zuni Tribe of the Zuni Reservation, New Mexico	Apache, AZ, Cibola, NM, McKinley, NM, Valencia, NM.

[1] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for ''members of the Tribe'' by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

[2] Entire State of Alaska is included as a CHSDA by regulation (42 CFR 136.22(a)(1)).

[3] Aroostook Band of Micmac was recognized by Congress on November 26, 1991 through the Aroostook Band of Micmac Settlement Act. Aroostook County was defined as the SDA.

[4] Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Brigham City (Pub. L. 88–358).

[5] Entire State of California, excluding counties of Alameda, Contra Costa, Los Angeles, Marin, Orange, Sacramento, San Francisco, San Mateo, Santa Clara, Kern, Merced, Monterey, Napa, San Benito, San Joaquin, San Luis Obispo, Santa Cruz, Solano, Stanislaus, and Ventura, is designated a CHSDA (25 U.S.C. 1680).

[6] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Pub. L. 93–638.

[7] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA to function as CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Pubic Law 93–638.

[8] Historically part of the Coleville Service Unit population since 1970.

[9] Members of the Tribe residing in these counties were specified as eligible for Federal services and benefits without regard to the existence of a Federal Indian reservation (Pub. L. 98–481, and H. Rept. No. 98–904).

[10] Confederated Tribes of Grande Ronde Community of Oregon recognized by Pub. L. 98–165, signed into law on November 22, 1983, provides for eligibility in these six counties without regard to the existence of a reservation.

[11] In order to carry out the Congressional intent of the Siletz Restoration Act, Public Law 95–195, as expressed in H. Report No. 95–623, at page 4, Siletz Tribal members residing in these counties are eligible for contract health services.

[12] Historically part of the Yakama Service Unit population since 1979.

[13] Contract Health Service Delivery Area expanded administratively by the Director, IHS, through regulation (42 CFR 136.22(6)) to include city limits of Elton, LA.

[14] Cow Creek Band of Umpqua Indians of Oregon recognized by Public Law 97–391, signed into law on December 29, 1983. House Rept. No. 97–862 designates Douglas, Jackson, and Josephine Counties as a service area without regard to the existence of a reservation. The IHS later exercised administrative discretion to add Coos, Deshutes, Klamath and Lane counties to the service delivery area.

[15] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Pub. L. 93–638. It is proposed that Columbia County, OR, Kittitas, WA and Wahkiakum County, WAS be added to the existing SDA.

[16] Historically part of Crow Service Unit population.

[17] Historically part of the Grand Traverse Service Unit population since 1980.

[18] Historically part of Kansas Service Unit since 1979. Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Haskell (H. Rept. No. 95–392).

[19] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(5)).

[20] Public Law 97–428 provides for eligibility in or around the Town of Houlton without regard to existence of a reservation.

[21] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[22] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[23] Texas Band of Kickapoo was recognized by Public Law 97–429, signed into law on January 8, 1983. The Act provides for eligibility for Kickapoo Tribal members residing in Maverick County without regard to the existence of a reservation.

[24] Legislative history states that for the purpose of Federal services and benefits ''members of the tribe residing in Klamath County shall be deemed to be residing in or near a reservation''. (Pub. L. 99–398, Sec. 2(2)).

[25] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[26] The Little River Band of Ottawa Indians and the Little Traverse Bay Bands of Odawa Indians were recognized by Congress (Pub. L. 103–324, Sec.4 (b)(2)) and the listed counties were designated as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[27] Mashantucket Pequot Indian Claims Settlement Act, Public Law 98–134, signed into law on October 18, 1983, provides for a reservation in New London.

[28] This is a newly recognized Tribe, as documented at 72 FR 8007, February 22, 2007. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[29] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[30] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[31] Choctaw Indians residing in Jasper and Noxubee Counties, MS, will continue to be eligible for contract health services. These two counties were inadvertently omitted from 42 CFR 136.22.

[32] Historically part of the Choctaw Service Unit population since 1970.

[33] Narragansett Indians recognized by Public Law 95–395, signed into law September 30, 1978. Lands in Washington County are now Federally restricted and the Bureau of Indian Affairs considers them as the Narragansett Indian Reservation.

[34] Entire State of Nevada is included as a CHSDA by regulation (42 CFR 136.22(a)(2)).

[35] Historically part of the Northern Cheyenne Service Unit population since 1979.

[36] Land of Box Elder County, Utah, taken into trust for the Tribe in 1986.

[37] Washabaugh County, SD is part of Jackson County, SD, on November 5, 1968.

[38] Entire State of Oklahoma is included as a CHSDA by regulation (42 CFR 136.22(a)(3)).

[39] Paiute Indian Tribe of Utah Reservation Act, Public Law 96–227, provides for the extension of services to these four counties without regard to the existence of a reservation.

[40] Legislative history (H.R. Report No. 95–1021) to Public Law 95–375, Extension of Federal Benefits to Pascua Yaqui Indians, Arizona, expresses congressional intent that lands conveyed to the Tribes pursuant to Act of October 8, 1964. (Pub. L. 88–350) shall be deemed a Federal Indian Reservation.

[41] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353).

[42] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353)

[43] Included to carry out the intention of Congress to fund and provide contract health services to Penobscot and Passamaquoddy Indians (Pub. L. 96–420; H. Rept. 96–1353)

[44] Counties in the Service Unit designated by Congress for the Poarch Band of Creek Indians (see H. Rept. 98–886, June 29, 1984; Cong. Record, October 10, 1984, Pg. H11929).

[45] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[46] Ponca Restoration Act, Pub. L. 101–484, recognized members of the Tribe residing in Boyd, Douglas, Knox, Madison or Lancaster counties of Nebraska or Charles Mix county of South Dakota shall be deemed to be residing on or near a reservation. Public Law 104–109 added Burt, Hall, Holt, Platte, Sarpy, Stanton, and Wayne counties of Nebraska and Pottawatomie and Woodbury counties of Iowa.

[47] Special programs established by Congress irrespective of the eligibility regulations. Eligibility for services at these facilities is based on the legislative history of the appropriation of funds for the particular facility, rather than the eligibility regulations and historically services have been provided at Rapid City.

[48] Historically part of Isabella Reservation Area and Eastern Michigan Service Unit population since 1979.

[49] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[50] The counties included in this CHSDA were designated by regulation (42 CFR 136.22(a)(4)).

[51] This is a newly recognized Tribe, as documented at 75 FR 34760, June 18, 2010. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[52] Historically part of the Fort Hall Service Unit population since 1979.

[53] This is a newly recognized Tribe, as documented at 67 FR 46329, July 12, 2002. The counties listed were designated administratively as the SDA, to function as a CHSDA, for the purposes of the operating a CHS program pursuant to the ISDEAA, Public Law 93–638.

[54] The Secretary acting through the Service is directed to provide contract health services to Turtle Mountain Band of Chippewa Indians that reside in Trenton Service Area of Divide, Mackenzie, and Williams counties in the state of North Dakota and the adjoining counties of Richland, Roosevelt, and Sheridan in the state of Montana (Sec. 815, Pub. L. 94–437).

[55] Historically part of the Tunica Biloxi Service Unit population since 1982.

[56] Members of the Tribe residing in Martha's Vineyard [are] deemed to be living "on or near an Indian reservation" for the purposes of eligibility for Federal services (Sec. 12, Pub. L. 100–95).

[57] Public Law 100–89, Restoration Act for Ysleta Del Sur and Alabama and Coushatta Tribes of Texas establishes service areas for "members of the Tribe" by sections 101(3) and 105(a) for the Pueblo and sections 201(3) and 206(a) respectively.

Dated: September 5, 2013.

Yvette Roubideaux,

Acting Director, Indian Health Service.

[FR Doc. 2013–22096 Filed 9–10–13; 8:45 am]

BILLING CODE 4165–16–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Office of the Director, National Institutes of Health; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the meeting of the Council of Councils.

The meeting will be open to the public as indicated below, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

A portion of the meeting 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: Council of Councils.

Open: September 24, 2013, 8:30 a.m. to 1:45 p.m.

Agenda: Update on the Common Fund; DPCPSI and NIH Update; Overview of Shared and High-End, Instrumentation Program; Scientific Presentation.

Place: National Institutes of Health, 9000 Rockville Pike, Building 31, C Wing, 6th Floor, Conference Room 10, Bethesda, MD 20892.

Closed: September 24, 2013, 1:45 p.m. to 2:45 p.m.

Agenda: Review of grant applications.

Place: National Institutes of Health, 9000 Rockville Pike, Building 31, C Wing, 6th

Floor, Conference Room 10, Bethesda, MD 20892.

Open: September 24, 2013, 3:00 p.m. to 4:40 p.m.

Agenda: Common Fund Discussion; Council Business Matters.

Place: National Institutes of Health, 9000 Rockville Pike, Building 31, C Wing, 6th Floor, Conference Room 10, Bethesda, MD 20892.

Contact Person: Robin Kawazoe, Executive Secretary, Division of Program Coordination, Planning, and Strategic Initiatives, Office of the Director, NIH, Building 1, Room 260, Bethesda, MD 20892, 301–402–9852.

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person. Information is also available on the Council of Council's home page at *http://dpcpsi.nih.gov/council/* where an agenda will be posted before the meeting date.

In the interest of security, NIH has instituted stringent procedures for entrance onto the NIH campus. All visitor vehicles, including taxicabs, hotel, and airport shuttles will be inspected before being allowed on campus. Visitors will be asked to show one form of identification (for example, a government-issued photo ID, driver's license, or passport) and to state the purpose of their visit.

This notice is being published less than 15 days prior to the meeting due to scheduling constraints.

(Catalogue of Federal Domestic Assistance Program Nos. 93.14, Intramural Research Training Award; 93.22, Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds; 93.232, Loan Repayment Program for Research Generally; 93.39, Academic Research Enhancement Award; 93.936, NIH Acquired Immunodeficiency Syndrome Research Loan Repayment Program; 93.187, Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds, National Institutes of Health, HHS)

Dated: September 5, 2013.

Carolyn Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22055 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), 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: National Cancer Institute Special Emphasis Panel; Innovative Technologies for Cancer Bio-specimen Science.

Date: October 8, 2013.

Time: 12:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute, 9609 Medical Center Drive, Room 7W030, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Donald L Coppock, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W260, Bethesda, MD 20892–9750, 240–276–6382, *donald.coppock@nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI Program Project Meeting I.

Date: October 9–10, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Washington/Rockville, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Caterina Bianco, MD, Ph.D., Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W610, Bethesda, MD 20892–9750, 240–276–6459, *biancoc@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Provocative Questions—Group C: Detection, Diagnosis, and Prognosis (R01).

Date: October 15–16, 2013.

Time: 4:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda North Marriott Hotel & Conference Center, 5701 Marinelli Road, Bethesda, MD 20852.

Contact Person: David G. Ransom, Ph.D., Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W124, Rockville, MD 20850, 240–276–6351, *david.ransom@nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel, NCI Program Project Meeting II.

Date: October 15–16, 2013.

Time: 4:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Washington/Rockville, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Delia Tang, MD, Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W602, Bethesda, MD 20892–9750, 240–276–6456, t*angd@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Provocative Questions—Group B: Tumor Development or Recurrence.

Date: October 16–17, 2013.

Time: 4:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda North Marriott Hotel & Conference Center, 5701 Marinelli Road, Bethesda, MD 20852.

Contact Person: Adriana Stoica, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W234, Bethesda, MD 20892–9750, 240–276–6368, *stoicaa2@mail.nih.gov.*

Name of Committee: National Cancer Institute Initial Review Group; Subcommittee I—Transition to Independence.

Date: October 21–22, 2013.

Time: 7:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hyatt Regency Bethesda, One Bethesda Metro Center, 7400 Wisconsin Avenue, Bethesda, MD 20814.

Contact Person: Sergei Radaev, Ph.D., Scientific Review Officer, Resources and Training Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 6116 Executive Blvd., Room 8113, Bethesda, MD 20892, 301–435–5655, *sradaev@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Early-Stage Innovative Molecular Analysis Technology Development for Cancer Research (R21).

Date: October 24, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute Shady Grove, 9609 Medical Center Drive, Room 7W034, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Jeffrey E. DeClue, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W238, Bethesda, MD 20892–8329, 240–276–6371, *decluej@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Integrative Cancer Biology.

Date: October 29, 2013.

Time: 11:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute Shady Grove, 9609 Medical Center Drive, Room 7W034, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Savvas C Makrides, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural

Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W412, Bethesda, MD 20892–9750, 240–276–6374, *makridessc@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI Clinical Studies.

Date: November 4, 2013.

Time: 12:00 p.m. to 2:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute Shady Grove, 9609 Medical Center Drive, Room 7W032, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Caterina Bianco, MD, Ph.D., Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W610, Bethesda, MD 20892–9750, 240–276–6459, *biancoc@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI Omnibus—Drug and Gene Delivery.

Date: November 7, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Washington/Rockville, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Savvas C Makrides, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W412, Bethesda, MD 20892–9750, 240–276–6374, *makridessc@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Cancer Prevention Research Small Grant Program.

Date: November 20, 2013.

Time: 8:00 a.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Garden Inn Rockville-Gaithersburg, 14975 Shady Grove Rd, Rockville, MD 20850.

Contact Person: Gerald G. Lovinger, Ph.D., Scientific Review Administrator, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W266, Bethesda, MD 20892–8329, 240–276–6385, *lovingeg@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Advance Development and Validation of Emerging J2 (R33).

Date: November 20, 2013.

Time: 10:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute Shady Grove, 9609 Medical Center Drive, Room 4W032, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Jeffrey E. DeClue, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W238, Bethesda, MD 20892–8329, 240–276–6371, *decluej@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI—Omnibus.

Date: November 21, 2013.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Crowne Plaza Washington, DC/Rockville, 3 Research Court, Rockville, MD 20850.

Contact Person: Donald L Coppock, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W260, Bethesda, MD 20892–9750, 240–276–6382, *donald.coppock@nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel; Nanotechnology-based Theranostics.

Date: November 21, 2013.

Time: 11:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Cancer Institute Shady Grove, 9609 Medical Center Drive, Room 6W032, Rockville, MD 20850, (Telephone Conference Call).

Contact Person: Savvas C Makrides, Ph.D., Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W412, Bethesda, MD 20892–9750, 240–276–6374, *makridessc@mail.nih.gov.*

Information is also available on the Institute's/Center's home page: *http://deainfo.nci.nih.gov/advisory/irg/irg.htm,* where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: September 5, 2013.

Melanie J. Gray,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22054 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Eye Institute; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the National Advisory Eye Council.

The meeting will be open to the public as indicated below, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

The meeting 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: National Advisory Eye Council.

Date: October 17, 2013.

Open: 8:30 a.m. to 2:00 p.m.

Agenda: Following opening remarks by the Director, NEI, there will be presentations by the staff of the Institute and discussions concerning Institute programs.

Place: National Institutes of Health, Neuroscience Building, Conference Room D, 6001 Executive Boulevard, Rockville, MD 20852.

Closed: 2:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Building, Conference Room D, 6001 Executive Boulevard, Rockville, MD 20852.

Contact Person: Lore Anne Mc Nicol, Ph.D., Director, Division of Extramural Research, National Eye Institute, National Institutes of Health Bethesda, MD 20892, (301) 451–2020, *mcnicoll@nei.nih.gov.*

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

Information is also available on the Institute's/Center's home page: *www.nei.nih.gov,* where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.867, Vision Research, National Institutes of Health, HHS)

Dated: September 5, 2013.

Melanie J. Gray,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22051 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute On Aging; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting 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: National Institute on Aging Initial Review Group, Behavior and Social Science of Aging Review Committee.

Date: October 3–4, 2013.

Time: 4:30 p.m. to 2:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree Hotel Bethesda, 8120 Wisconsin Avenue, Bethesda, MD 20814.

Contact Person: Rebecca J. Ferrell, Ph.D., Scientific Review Officer, National Institute on Aging, Gateway Building, 7201 Wisconsin Avenue, Suite 2C212, Bethesda, MD 20892, (301) 402–7703, *rebecca.ferrell@nih.gov*.

(Catalogue of Federal Domestic Assistance Program No. 93.866, Aging Research, National Institutes of Health, HHS)

Dated: September 5, 2013.

Melanie J. Gray,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22053 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Human Genome Research Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), 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: National Human Genome Research Institute Special Emphasis Panel; Clinical Sites for Undiagnosed Diseases Network.

Date: October 17, 2013.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Arlington Capital View Hotel, Studio E, 2800 South Potomac Ave., Arlington, VA 22202.

Contact Person: Rudy O. Pozzatti, Ph.D., Scientific Review Officer, Scientific Review Branch, National Human Genome Research Institute, 5635 Fishers Lane, Suite 4076, MSC 9306, Rockville, MD 20852, (301) 402–0838, *pozzattr@mail.nih.gov*.

Name of Committee: National Human Genome Research Institute Special Emphasis Panel; Genomic Resources.

Date: October 31, 2013.

Time: 12:00 p.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Human Genome Research Institute, 4th Floor Library, 5635 Fishers Lane, Rockville, MD 20852 (Telephone Conference Call).

Contact Person: Keith McKenney, Ph.D., Scientific Review Officer, NHGRI, 5635 Fishers Lane, Suite 4076, Bethesda, MD 20814, 301–594–4280, *mckenneyk@mail.nih.gov*.

Name of Committee: National Human Genome Research Institute Special Emphasis Panel; Genomic Medicine Pilot Demonstration Projects.

Date: November 14, 2013.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Arlington Capital View Hotel, Studio E, 2800 South Potomac Ave., Arlington, VA.

Contact Person: Keith McKenney, Ph.D., Scientific Review Officer, NHGRI, 5635 Fishers Lane, Suite 4076, Bethesda, MD 20814, 301–594–4280, *mckenneyk@mail.nih.gov*.

(Catalogue of Federal Domestic Assistance Program Nos. 93.172, Human Genome Research, National Institutes of Health, HHS)

Dated: September 5, 2013.

David Clary,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22057 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–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 (5 U.S.C. App.), 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: Oncology 2—Translational Clinical Integrated Review Group; Clinical Oncology Study Section.

Date: October 7, 2013.

Time: 8:00 a.m. to 7:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn Riverwalk, 217 N Saint Mary's Street, San Antonio, TX 78205.

Contact Person: Malaya Chatterjee, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6192, MSC 7804, Bethesda, MD 20892, 301–806–2515, *chatterm@csr.nih.gov.*

Name of Committee: Population Sciences and Epidemiology Integrated Review Group; Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions Study Section.

Date: October 7–8, 2013.

Time: 8:00 a.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Old Town Alexandria, Alexandria, MD.

Contact Person: Lisa Steele, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3139, MSC 7770, Bethesda, MD 20892, (301) 257–2638, *steeleln@csr.nih.gov.*

Name of Committee: Population Sciences and Epidemiology Integrated Review Group, Behavioral Genetics and Epidemiology Study Section.

Date: October 8, 2013.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Melrose Hotel, 2430 Pennsylvania Ave. NW., Washington, DC 20037.

Contact Person: George Vogler, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3140, MSC 7770, Bethesda, MD 20892, (301) 237–2693, *voglergp@csr.nih.gov.*

Name of Committee: Bioengineering Sciences & Technologies Integrated Review Group; Modeling and Analysis of Biological Systems Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 4:00 p.m.

Agenda: To review and evaluate grant applications.

Place: The William F. Bolger Center, 9600 Newbridge Drive, Potomac, MD 20854.

Contact Person: Craig Giroux, Ph.D., Scientific Review Officer, BST IRG, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5150, Bethesda, MD 20892, 301–435–2204, *girouxcn@csr.nih.gov.*

Name of Committee: Biobehavioral and Behavioral Processes Integrated Review Group; Cognition and Perception Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Churchill Hotel, 1914 Connecticut Avenue NW., Washington, DC 20009.

Contact Person: Dana Jeffrey Plude, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3176, MSC 7848, Bethesda, MD 20892, (301) 435–2309, *pluded@csr.nih.gov.*

Name of Committee: Endocrinology, Metabolism, Nutrition and Reproductive Sciences Integrated Review Group, Clinical and Integrative Diabetes and Obesity Study Section.

Date: October 10, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: The Allerton Hotel, 701 North Michigan Avenue, Chicago, IL 60611.

Contact Person: Nancy Sheard, SCD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6046–E, MSC 7892, Bethesda, MD 20892, 301–408–9901, *sheardn@csr.nih.gov.*

Name of Committee: Oncology 1-Basic Translational Integrated Review Group, Cancer Genetics Study Section.

Date: October 10, 2013.

Time: 8:00 a.m. to 6:30 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Arlington Capital View Hotel, 2800 South Potomac Ave., Arlington, VA 22202.

Contact Person: Michael L Bloom, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6187, MSC 7804, Bethesda, MD 20892, 301–451–0132, *bloomm2@mail.nih.gov.*

Name of Committee: Biological Chemistry and Macromolecular Biophysics Integrated Review Group, Macromolecular Structure and Function D Study Section.

Date: October 10, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Washington Plaza Hotel, 10 Thomas Circle NW., Washington, DC 20005.

Contact Person: James W Mack, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4154, MSC 7806, Bethesda, MD 20892, (301) 435–2037, *mackj2@csr.nih.gov.*

Name of Committee: Brain Disorders and Clinical Neuroscience Integrated Review Group, Clinical Neuroplasticity and Neurotransmitters Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Long Beach and Executive Center, 701 West Ocean Boulevard, Long Beach, CA 90831.

Contact Person: Suzan Nadi, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5217B, MSC 7846, Bethesda, MD 20892, 301–435–1259, *nadis@csr.nih.gov.*

Name of Committee: Brain Disorders and Clinical Neuroscience Integrated Review Group, Pathophysiological Basis of Mental Disorders and Addictions Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Embassy Suites Washington DC—Convention Center, 900 10th St. NW., Washington, DC 20001.

Contact Person: Julius Cinque, MS, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5186, MSC 7846, Bethesda, MD 20892, (301) 435–1252, *cinquej@csr.nih.gov.*

Name of Committee: Cell Biology Integrated Review Group, Development—2 Study Section.

Date: October 10, 2013.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree Hotel Washington, 1515 Rhode Island Ave. NW., Washington, DC 20005.

Contact Person: Rass M Shayiq, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institute of Health, 6701 Rockledge Drive, Room 2182, MSC 7818, Bethesda, MD 20892, (301) 435–2359, *shayiqr@csr.nih.gov.*

Name of Committee: Cell Biology Integrated Review Group, Molecular and Integrative Signal Transduction Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:30 p.m.

Agenda: To review and evaluate grant applications.

Place: Sheraton Gunter Hotel, 205 East Houston Street, San Antonio, TX 78205.

Contact Person: Raya Mandler, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5134, MSC 7840, Bethesda, MD 20892, (301) 402–8228, *rayam@csr.nih.gov.*

Name of Committee: Center for Scientific Review Special Emphasis Panel, Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Garden Inn Bethesda, 7301 Waverly Street, Bethesda, MD 20814.

Contact Person: Paek-Gyu Lee, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5196, MSC 7812, Bethesda, MD 20892, (301) 613–2064, *leepg@csr.nih.gov.*

Name of Committee: Molecular, Cellular and Developmental Neuroscience Integrated Review Group, Synapses, Cytoskeleton and Trafficking Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 12:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hotel Monaco Alexandria, 480 King Street, Alexandria, VA 22314.

Contact Person: Jonathan K Ivins, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4186, MSC 7850, Bethesda, MD 20892, (301) 594–1245, *ivinsj@csr.nih.gov.*

Name of Committee: Musculoskeletal, Oral and Skin Sciences Integrated Review Group, Skeletal Muscle and Exercise Physiology Study Section.

Date: October 10–11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place:

Contact Person: Richard Ingraham, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4116, MSC 7814, Bethesda, MD 20892, 301–496–8551, *ingrahamrh@mail.nih.gov.*

Name of Committee: Center for Scientific Review Special Emphasis Panel, PAR–13–094: Differentiation and Integration of Stem Cells (Embryonic and Induced-Pluripotent) Into Developing or Damaged Tissues.

Date: October 11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree Hotel Washington, 1515 Rhode Island Ave. NW., Washington, DC 20005.

Contact Person: Rass M Shayiq, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institute of Health, 6701 Rockledge Drive, Room 2182, MSC 7818, Bethesda, MD 20892, (301) 435–2359, *shayiqr@csr.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: September 5, 2013.

Carolyn A. Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22052 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting 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: National Institute of Child Health and Human Development Initial Review Group, Health, Behavior, and Context Subcommittee.

Date: September 30–October 1, 2013.

Time: 9:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree Hotel Bethesda, (Formerly Holiday Inn Select), 8120 Wisconsin Avenue, Bethesda, MD 20814.

Contact Person: Michele C. Hindi-Alexander, Ph.D., Scientific Review Officer, Division of Scientific Review, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, 6100 Executive Blvd., Room 5b01, Bethesda, MD 20892, 301–435–8382, *hindialm@mail.nih.gov*.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: September 5, 2013.

Michelle Trout,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–22056 Filed 9–10–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Internal Agency Docket No. FEMA–4142–DR; Docket ID FEMA–2013–0001]

Karuk Tribe; Major Disaster and Related Determinations

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the Karuk Tribe (FEMA–4142–DR), dated August 29, 2013, and related determinations.

DATES: *Effective Date:* August 29, 2013.

FOR FURTHER INFORMATION CONTACT: Dean Webster, Office of Response and Recovery, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472, (202) 646–2833.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated August 29, 2013, the President issued a major disaster declaration under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 *et seq.* (the ''Stafford Act''), as follows:

I have determined damage to the lands associated with the Karuk Tribe resulting from a wildfire during the period of July 29 to August 2, 2013, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 et seq. (the ''Stafford Act''). Therefore, I declare that such a major disaster exists for the Karuk Tribe and associated lands.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Public Assistance and Hazard Mitigation for the Karuk Tribe and associated lands. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Hazard Mitigation will be limited to 75 percent of the total eligible costs. Federal funds provided under the Stafford Act for Public Assistance also will be limited to 75 percent of the total eligible costs, with the exception of projects that meet the eligibility criteria for a higher Federal cost-sharing percentage under the Public Assistance Alternative Procedures Pilot Program for Debris Removal implemented pursuant to Section 428 of the Stafford Act.

Further, you are authorized to make changes to this declaration for the approved assistance to the extent allowable under the Stafford Act.

The Federal Emergency Management Agency (FEMA) hereby gives notice that pursuant to the authority vested in the Administrator, under Executive Order 12148, as amended, Stephen M. DeBlasio Sr., of FEMA is appointed to act as the Federal Coordinating Officer for this major disaster.

The following areas have been designated as adversely affected by this major disaster:

The Karuk Tribe and associated lands for Public Assistance.

The Karuk Tribe is eligible to apply for assistance under the Hazard Mitigation Grant Program.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 97.030, Community Disaster Loans; 97.031, Cora Brown Fund; 97.032, Crisis Counseling; 97.033, Disaster Legal Services; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance Grant; 97.048, Disaster Housing Assistance to Individuals and Households in Presidentially Declared Disaster Areas; 97.049, Presidentially Declared Disaster Assistance—Disaster Housing Operations for Individuals and Households; 97.050, Presidentially Declared Disaster Assistance to Individuals and Households—Other Needs; 97.036, Disaster Grants—Public Assistance (Presidentially Declared Disasters); 97.039, Hazard Mitigation Grant.)

W. Craig Fugate,

Administrator, Federal Emergency Management Agency.

[FR Doc. 2013–22086 Filed 9–10–13; 8:45 am]

BILLING CODE 9111–23–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLAK910000 L13100000.DB0000 LXSINSSI0000]

Second Call for Nominations: North Slope Science Initiative, Science Technical Advisory Panel

AGENCY: Bureau of Land Management, Alaska State Office, North Slope Science Initiative, Interior.

ACTION: Notice.

SUMMARY: This notice announces a second call for nominations to serve on the North Slope Science Initiative, Science Technical Advisory Panel, in accordance with the provisions of the Federal Advisory Committee Act (FACA) of 1972, as amended.

DATES: All nominations and required attachments must be received no later than 30 days after the publication of this notice.

FOR FURTHER INFORMATION CONTACT: John F. Payne, Executive Director, North

Slope Science Initiative, AK–910, c/o Bureau of Land Management, 222 W. Seventh Avenue, #13, Anchorage, AK 99513, 907–271–3431 or email *jpayne@blm.gov.*

SUPPLEMENTARY INFORMATION: The legislative purpose (Section 348, Energy Policy Act of 2005, Pub. L. 109–58) of the North Slope Science Initiative, Science Technical Advisory Panel is to advise the North Slope Science Initiative Oversight Group on issues such as identifying and prioritizing inventory, monitoring and research needs, and providing other scientific information as requested by the Oversight Group. The Oversight Group membership includes the Alaska Regional Directors of the U.S. Fish and Wildlife Service, National Park Service, Bureau of Ocean Energy Management and National Marine Fisheries Service; the Bureau of Land Management Alaska State Director; the Commissioners of the Alaska Departments of Natural Resources and Fish and Game; the Mayor of the North Slope Borough; and the President of Arctic Slope Regional Corporation. Advisory members of the Oversight Group include the Regional Executive, U.S. Geological Survey; Deputy Director, U.S. Arctic Research Commission; Alaska Regional Director, National Weather Service; and the Regional Coordinator for the National Oceanographic and Atmospheric Administration.

The Science Technical Advisory Panel consists of a representative group of not more than 15 scientists and technical experts from diverse professions and interests, including the oil and gas industry, subsistence users, Alaska Native entities, conservation organizations, and academia, as determined by the Secretary of the Interior. The members are selected from among, but not limited to, the following disciplines: North Slope traditional and local knowledge, landscape ecology, petroleum engineering, civil engineering, geology, sociology, cultural anthropology, economics, ornithology, oceanography, fisheries, marine biology, landscape ecology, and climatology.

Duties of the Science Technical Advisory Panel are solely advisory to the Oversight Group, which will provide direction regarding priorities for decisions needed for the management of resources on the North Slope of Alaska and the adjacent marine environment. Duties could include, but are not limited to, the following:

a. Advise the Oversight Group on science planning and relevant inventory, monitoring and research projects necessary for management decisions;

b. Advise the Oversight Group on scientific information relevant to the mission of the North Slope Science Initiative;

c. Review selected reports and advise the Oversight Group on their content and relevance;

d. Review ongoing scientific programs of the North Slope Science Initiative member organizations at the request of the membership to promote compatibility in methodologies and compilation of duties;

e. Advise the Oversight Group on how to ensure scientific products generated through the North Slope Science Initiative activities are of the highest technical quality;

f. Provide scientific advice as requested by the Oversight Group; and,

g. Coordinate with groups, committees and sub-committees as requested by the Oversight Group.

The Executive Director, North Slope Science Initiative, will serve as the Designated Federal Officer of the Science Technical Advisory Panel.

Qualifications and Procedures Required for Nomination

All membership will consist of individuals having a minimum of five years of work experience in the Arctic in their field of expertise. Individuals will be selected from among, but not limited to, those disciplines and entities described above. Any individual or organization may nominate one or more persons, including themselves, to serve on the Science Technical Advisory Panel. Members will be appointed for three year terms. Current Science Technical Advisory Panel appointees may be reappointed for additional terms at the discretion of the Secretary of the Interior. Under current Administration policy, federally registered lobbyists may not serve on the panel.

How To Nominate

Nomination forms may be obtained from the North Slope Science Initiative Web site (*http://www.northslope.org*), or from the Executive Director, North Slope Science Initiative (see ''For Further Information Contact'' section, above). To make a nomination, or self-nominate, submit a completed nomination form with a minimum of one letter of reference that describes the nominee's qualifications to serve on the Science Technical Advisory Panel. The professional discipline the nominee would represent should be identified in the reference letter of nomination and in the nomination form. Nominees may be scientists and technical experts from diverse professions and interests, including, but not limited to, oil and gas industry, subsistence users, Alaska Native entities, conservation organizations, or academia. Nominees appointed to serve on the Science Technical Advisory Panel will serve only in their professional capacity and will not serve to represent any group, agency or entity with whom they may be affiliated.

The Executive Director, North Slope Science Initiative, will collect the nomination forms and letters of reference and distribute them to the Oversight Group for consideration. The collective recommendations of the Oversight Group will be submitted to the Secretary of the Interior who has the responsibility for making appointments.

Members of the Science Technical Advisory Panel will serve without monetary compensation, but will be reimbursed for travel, lodging and per diem expenses to participate in announced meetings.

Certification:

I hereby certify the Science Technical Advisory Panel is necessary and in the public interest in connection with the Secretary of the Interior's responsibilities, and in compliance with Section 348, Energy Policy Act of 2005 (Pub. L. 109–58).

Authority: 43 CFR 1784.4–1.

Bud C. Cribley,

State Director.

[FR Doc. 2013–22078 Filed 9–10–13; 8:45 am]

BILLING CODE 1310–JA–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701–TA–502 and 731–TA–1227–1228 (Preliminary)]

Steel Concrete Reinforcing Bar From Mexico and Turkey; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations

AGENCY: United States International Trade Commission.

ACTION: Notice.

SUMMARY: The Commission hereby gives notice of the institution of investigations and commencement of preliminary phase antidumping and countervailing duty investigations Nos. 701–TA–502 and 731–TA–1227–1228 (Preliminary) under sections 703(a) and 733(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a) and 1673b(a)) (the Act) to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with

material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Mexico and Turkey of steel concrete reinforcing bar, primarily provided for in subheadings 7213.10, 7214.20, and 7228.30 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value and by reason of imports from Turkey that are alleged to be subsidized by the Government of Turkey. Unless the Department of Commerce extends the time for initiation pursuant to sections 702(c)(1)(B) or 732(c)(1)(B) of the Act (19 U.S.C. 1671a(c)(1)(B) or 1673a(c)(1)(B)), the Commission must reach a preliminary determination in antidumping and countervailing duty investigations in 45 days, or in this case by October 21, 2013. The Commission's views are to be issued within five business days thereafter, or by October 28, 2013.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and B (19 CFR part 207).

DATES: *Effective Date:* September 4, 2013.

FOR FURTHER INFORMATION CONTACT: Michael Szustakowski (202–205–3169), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its internet server (*http://www.usitc.gov*). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

SUPPLEMENTARY INFORMATION:

Background.—These investigations are being instituted in response to a petition filed on September 4, 2013, by the Rebar Trade Action Coalition and its individual members: Nucor Corporation, Charlotte, NC; Gerdau Ameristeel U.S. Inc., Tampa, FL; Commercial Metals Company, Irving, TX; Cascade Steel Rolling Mills, Inc., McMinnville, OR; and Byer Steel Corporation, Cincinnati, OH.

Participation in the investigations and public service list.—Persons (other than petitioners) wishing to participate in the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in sections 201.11 and 207.10 of the Commission's rules, not later than seven days after publication of this notice in the **Federal Register**. Industrial users and (if the merchandise under investigation is sold at the retail level) representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations upon the expiration of the period for filing entries of appearance.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in these investigations available to authorized applicants representing interested parties (as defined in 19 U.S.C. 1677(9)) who are parties to the investigations under the APO issued in the investigations, provided that the application is made not later than seven days after the publication of this notice in the **Federal Register**. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Conference.—The Commission's Director of Investigations has scheduled a conference in connection with these investigations for 9:30 a.m. on September 25, 2013, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Requests to appear at the conference should be filed with *William.Bishop@usitc.gov* and *Sharon.Bellamy@usitc.gov* (do not file on EDIS) on or before September 20, 2013. Parties in support of the imposition of countervailing and antidumping duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

Written submissions.—As provided in sections 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before September 30, 2013, a written brief containing information and arguments pertinent to the subject matter of the investigations. Parties may file written testimony in connection with their presentation at the conference no later than three days before the conference. If briefs or written testimony contain BPI, they must conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. Please be aware that the Commission's rules with respect to electronic filing have been amended. The amendments took effect on November 7, 2011. See 76 FR 61937 (Oct. 6, 2011) and the newly revised Commission's Handbook on E-Filing, available on the Commission's Web site at *http://edis.usitc.gov.*

In accordance with sections 201.16(c) and 207.3 of the rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.12 of the Commission's rules.

Issued: September 5, 2013.

By order of the Commission.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–22020 Filed 9–10–13; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Notice of Lodging of Proposed Consent Decree Under the Clean Air Act

On September 4, 2013, the Department of Justice lodged a proposed consent decree with the United States District Court for the Northern District of California in the lawsuit entitled *United States* v. *Safeway Inc.,* Civil Action No. C–13–4086.

The United States filed this lawsuit under the Clean Air Act. The United States' complaint seeks injunctive relief and civil penalties for violations of the regulations governing the service and repair of commercial refrigeration appliances that use ozone-depleting refrigerant. The consent decree requires Safeway Inc. to perform injunctive relief and pay a $600,000 civil penalty.

The publication of this notice opens a period for public comment on the consent decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and should refer to

United States v. *Safeway Inc.,* D.J. Ref. No. 90–5–2–1–09644. All comments must be submitted no later than thirty (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 e-mail	*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 consent decree may be examined and downloaded at this Justice Department Web site: *http://www.usdoj.gov/enrd/Consent_Decrees.html.* We will provide a paper copy of the consent decree upon written request and payment of reproduction costs. Please mail your request and payment to: Consent Decree Library, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

Please enclose a check or money order for $27.50 (25 cents per page reproduction cost) payable to the United States Treasury. For a paper copy without the two appendices to the consent decree, the cost is $7.75.

Henry S. Friedman,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2013–22082 Filed 9–10–13; 8:45 am]

BILLING CODE 4410–15–P

DEPARTMENT OF LABOR

Employment and Training Administration

Notice of Determinations Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974, as amended (19 U.S.C. 2273) the Department of Labor herein presents summaries of determinations regarding eligibility to apply for trade adjustment assistance for workers by (TA–W) number issued during the period of August 19, 2013 through August 23, 2013.

In order for an affirmative determination to be made for workers of a primary firm and a certification issued regarding eligibility to apply for worker adjustment assistance, each of the group eligibility requirements of Section 222(a) of the Act must be met.

I. Under Section 222(a)(2)(A), the following must be satisfied:

(1) A significant number or proportion of the workers in such workers' firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) the sales or production, or both, of such firm have decreased absolutely; and

(3) One of the following must be satisfied:

(A) Imports of articles or services like or directly competitive with articles produced or services supplied by such firm have increased;

(B) imports of articles like or directly competitive with articles into which one or more component parts produced by such firm are directly incorporated, have increased;

(C) imports of articles directly incorporating one or more component parts produced outside the United States that are like or directly competitive with imports of articles incorporating one or more component parts produced by such firm have increased;

(D) imports of articles like or directly competitive with articles which are produced directly using services supplied by such firm, have increased; and

(4) the increase in imports contributed importantly to such workers' separation or threat of separation and to the decline in the sales or production of such firm; or

II. Section 222(a)(2)(B) all of the following must be satisfied:

(1) A significant number or proportion of the workers in such workers' firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) One of the following must be satisfied:

(A) There has been a shift by the workers' firm to a foreign country in the production of articles or supply of services like or directly competitive with those produced/supplied by the workers' firm;

(B) there has been an acquisition from a foreign country by the workers' firm of articles/services that are like or directly competitive with those produced/supplied by the workers' firm; and

(3) the shift/acquisition contributed importantly to the workers' separation or threat of separation.

In order for an affirmative determination to be made for adversely affected workers in public agencies and a certification issued regarding eligibility to apply for worker adjustment assistance, each of the group eligibility requirements of Section 222(b) of the Act must be met.

(1) A significant number or proportion of the workers in the public agency have become totally or partially separated, or are threatened to become totally or partially separated;

(2) the public agency has acquired from a foreign country services like or directly competitive with services which are supplied by such agency; and

(3) the acquisition of services contributed importantly to such workers' separation or threat of separation.

In order for an affirmative determination to be made for adversely affected secondary workers of a firm and a certification issued regarding eligibility to apply for worker adjustment assistance, each of the group eligibility requirements of Section 222(c) of the Act must be met.

(1) A significant number or proportion of the workers in the workers' firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) the workers' firm is a Supplier or Downstream Producer to a firm that employed a group of workers who received a certification of eligibility under Section 222(a) of the Act, and such supply or production is related to the article or service that was the basis for such certification; and

(3) either—

(A) the workers' firm is a supplier and the component parts it supplied to the firm described in paragraph (2) accounted for at least 20 percent of the production or sales of the workers' firm; or

(B) a loss of business by the workers' firm with the firm described in paragraph (2) contributed importantly to the workers' separation or threat of separation.

In order for an affirmative determination to be made for adversely affected workers in firms identified by the International Trade Commission and a certification issued regarding eligibility to apply for worker adjustment assistance, each of the group eligibility requirements of Section 222(f) of the Act must be met.

(1) The workers' firm is publicly identified by name by the International Trade Commission as a member of a domestic industry in an investigation resulting in—

(A) an affirmative determination of serious injury or threat thereof under section 202(b)(1);

(B) an affirmative determination of market disruption or threat thereof under section 421(b)(1); or

(C) an affirmative final determination of material injury or threat thereof under section 705(b)(1)(A) or 735(b)(1)(A) of

the Tariff Act of 1930 (19 U.S.C. 1671d(b)(1)(A) and 1673d(b)(1)(A));

(2) the petition is filed during the 1-year period beginning on the date on which—

(A) a summary of the report submitted to the President by the International Trade Commission under section 202(f)(1) with respect to the affirmative determination described in paragraph (1)(A) is published in the **Federal Register** under section 202(f)(3); or

(B) notice of an affirmative determination described in subparagraph (1) is published in the **Federal Register**; and

(3) the workers have become totally or partially separated from the workers' firm within—

(A) the 1-year period described in paragraph (2); or

(B) notwithstanding section 223(b)(1), the 1-year period preceding the 1-year period described in paragraph (2).

Affirmative Determinations for Worker Adjustment Assistance

The following certifications have been issued. The date following the company name and location of each determination references the impact date for all workers of such determination.

The following certifications have been issued. The requirements of Section 222(a)(2)(A) (increased imports) of the Trade Act have been met.

TA–W No.	Subject firm	Location	Impact date
82,748	SGL Carbon, LLC, Reflex Staffing Services and Manpower	St. Marys, PA	May 16, 2012.
82,965	Key City Furniture, Inc.	Wilkesboro, NC	August 7, 2012.

The following certifications have been issued. The requirements of Section 222(a)(2)(B) (shift in production or services) of the Trade Act have been met.

TA–W No.	Subject firm	Location	Impact date
82,385	Closure Systems International Packaging Machinery, Inc., Equipment Division, Closure Systems International Holdings, Inc.	Randolph, NY	January 8, 2012.
82,620	Hewlett Packard Company, HPSW Application Management Research & Development Division.	Andover, MA	March 29, 2012.
82,687	Daimler Trucks North America, LLC, Cleveland Truck Manufacturing Plant, Concentra, Walden Security, etc.	Cleveland, NC	April 5, 2012.
82,845	Keithley Instrument	Solon, OH	July 9, 2013.
82,876	Philips Healthcare, Respiratory Care, Adecco	Wallingford, CT	July 3, 2012.
82,885	Acosta, Inc	Marlborough, MA	July 8, 2012.
82,885A	Acosta, Inc	Eden Prairie, MN	July 8, 2012.
82,889	Shaw Mid States Pipe Fabricating, Inc., a/k/a Chicago Bridge and Iron Company, Engineering Department.	El Dorado, AR	July 9, 2012.
82,892	Gregory Mountain Products	Calexico, CA	June 28, 2012.
82,902	Gyrus ACMI, Inc., Olympus Corporation of the Americas, Aerotex, Officeteam, etc.	Stamford, CT	July 11, 2012.
82,909	Jabil Circuit, Inc., Aerotek, Manpower and Insight Global	Tempe, AZ	July 12, 2012.
82,911	CompuCom Systems, Inc., Logistics and Distribution Teams	Dallas, TX	July 16, 2012.
82,912	Flextronics Systems Texas LTD, Flextronics International, Aerotek	Stafford, TX	July 15, 2012.
82,944	Cubic Simulation Systems, Inc., Cubic Corporation, Revolution Technologies, Randstad, etc.	Orlando, FL	July 30, 2012.
82,950	The Travelers Indemnity Company, Albany, NY Small Commercial Operations Processing Center.	Albany, NY	July 31, 2012.
82,966	Kohl's Department Stores, Inc., Finance Department, Kforce and Educated Solutions Corporation.	Milwaukee, WI	August 7, 2012.
82,974	Schneider Electric Buildings LLC, Schneider Electric United States, North American, Furst Staffing and Volt.	Loves Park, IL	August 7, 2012.
82,975	Systems & Services Technologies (SST), Special Services Division	St. Joseph, MO	August 9, 2012.
82,988	RadiSys Corporation, Qualstaff, Employment Trends, Northwest Software and Resources Global.	Hillsboro, OR	September 3, 2013.
82,988A	Leased Workers from Boly Welch, Ultimate Staffing, and Global Resources Working On-Site at Radisys Corporation.	Hillsboro, OR	August 12, 2012.

Negative Determinations for Worker Adjustment Assistance

In the following cases, the investigation revealed that the eligibility criteria for worker adjustment assistance have not been met for the reasons specified.

The investigation revealed that the criterion under paragraph (a)(1), or (b)(1), or (c)(1)(employment decline or threat of separation) of section 222 has not been met.

TA–W number	Subject firm	Location	Impact date
82,614	SAP Global Marketing, Inc., Financial Analysis for Global Marketing	New York, NY	

The investigation revealed that the criteria under paragraphs(a)(2)(A) (increased imports) and (a)(2)(B) (shift in production or services to a foreign country) of section 222 have not been met.

TA–W No.	Subject firm	Location	Impact date
82,775	TechniGraphics, Inc., CACI, Inc.—Federal Geospatial Division	Wooster, OH	
82,828	Automatic Data Processing (ADP)—Corporate, Corporate Finance, Kforce, Inc. and Horizon Corporate Consultants, Inc.	San Dimas, CA	
82,828A	Automatic Data Processing (ADP), Added Value Services, Randstad, Aerotek, Apex Systems, Horizon, etc.	San Dimas, CA	
82,828B	Automatic Data Processing (ADP), Inc., Corporate Information Technology, Randstad, Aerotek, Apex Systems, etc.	San Dimas, CA	
82,869	Council for South Texas Economic Progress, Inc., (COSTEP), Campus Partners, Aerotek.	Winston-Salem, NC	
82,903	UnitedHealth Group, Inc., Optuminsight Provider Market Group, Remote Medical Transcription/Editing.	Minnetonka, MN	
82,913	TransPortal, LLC	Charlotte, NC	
82,949	NBTY, Inc., Alphabet Holding Company, Information Technology Department, Agile 1.	Ronkonkoma, NY	

Determinations Terminating Investigations of Petitions for Worker Adjustment Assistance

After notice of the petitions was published in the **Federal Register** and on the Department's Web site, as required by Section 221 of the Act (19 U.S.C. 2271), the Department initiated investigations of these petitions.

The following determinations terminating investigations were issued because the petitioner has requested that the petition be withdrawn.

TA–W No.	Subject firm	Location	Impact date
82,704	YP Western Directory LLC, YP Holdings LLC	Pleasanton, CA	
82,978	Belldini	Los Angeles, CA	

The following determinations terminating investigations were issued because the petitioning groups of workers are covered by active certifications. Consequently, further investigation in these cases would serve no purpose since the petitioning group of workers cannot be covered by more than one certification at a time.

TA–W No.	Subject firm	Location	Impact date
82,934	CorTech, LLC, Interstate Brands Corporation, Hostess Brands	West Helena, AR	
82,953	ATR International, Abbott Laboratories, Diagnostic—Hematology, Manpower Service Group.	Santa Clara, CA	

I hereby certify that the aforementioned determinations were issued during the period of August 19, 2013 through August 23, 2013. These determinations are available on the Department's Web site *tradeact/taa/taa_search_form.cfm* under the searchable listing of determinations or by calling the Office of Trade Adjustment Assistance toll free at 888–365–6822.

Signed at Washington DC this 27th day of August 2013.

Del Min Amy Chen,

Certifying Officer, Office of Trade Adjustment Assistance .

[FR Doc. 2013–22075 Filed 9–10–13; 8:45 am]

BILLING CODE 4510–FN–P

DEPARTMENT OF LABOR

Employment and Training Administration

Investigations Regarding Eligibility To Apply for Worker Adjustment Assistance

Petitions have been filed with the Secretary of Labor under Section 221(a) of the Trade Act of 1974 (''the Act'') and are identified in the Appendix to this notice. Upon receipt of these petitions, the Director of the Office of Trade Adjustment Assistance, Employment and Training Administration, has instituted investigations pursuant to Section 221(a) of the Act.

The purpose of each of the investigations is to determine whether the workers are eligible to apply for adjustment assistance under Title II, Chapter 2, of the Act. The investigations will further relate, as appropriate, to the determination of the date on which total or partial separations began or threatened to begin and the subdivision of the firm involved.

The petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing, provided such request is filed in writing with the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than September 23, 2013.

Interested persons are invited to submit written comments regarding the subject matter of the investigations to the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than September 23, 2013.

The petitions filed in this case are available for inspection at the Office of the Director, Office of Trade Adjustment Assistance, Employment and Training Administration, U.S. Department of

Labor, Room N–5428, 200 Constitution Avenue NW., Washington, DC 20210.

Signed at Washington, DC, this 29th day of August 2013.

Del Min Amy Chen,

Certifying Officer, Office of Trade Adjustment Assistance.

Appendix

TA–W	Subject firm (petitioners)	Location	Date of institution	Date of petition
82999	ATOS IT Solutions & Services, Inc., Billing & Collections Dept (State/One-Stop).	Mason, OH	08/19/13	08/16/13
83000	Penguin Taxes (Company)	Burlington, NC	08/19/13	08/18/13
83001	Allen Truck Brokers (Company)	Gilmer, TX	08/19/13	08/14/13
83002	PVH/WARNACO (Workers)	Duncansville, PA	08/19/13	08/15/13
83003	Daikin McQuay (Union)	Auburn, NY	08/19/13	08/16/13
83004	Thomson Reuters (State/One-Stop)	New York, NY	08/19/13	08/16/13
83005	Mars Petcare US, Incorporated (State/One-Stop)	Joplin, MO	08/19/13	08/16/13
83006	Mersen USA Bn Corp, Bay City Branch (Company)	Bay City, MI	08/20/13	08/19/13
83007	AM General (Union)	Mishawaka, IN	08/20/13	07/23/13
83008	Quest Diagnostics (Workers)	Addison, TX	08/21/13	08/20/13
83009	Horsehead Corporation (Union)	Monaca, PA	08/21/13	08/20/13
83010	CTS Automotive LLC (State/One-Stop)	Carol Stream, IL	08/21/13	08/20/13
83011	Legrand/Cablofil (Company)	Pico Rivera, CA	08/21/13	08/20/13
83012	Bush Industries, Inc. (Company)	Jamestown, NY	08/21/13	08/20/13
83013	Graymont (State/One-Stop)	St. Helens, OR	08/21/13	08/20/13
83014	American Customer Care (Workers)	Elmira, NY	08/21/13	08/12/13
83015	Fenner Precision (Workers)	Buffalo, NY	08/22/13	08/21/13
83016	Fairchild Semiconductor (Workers)	West Jordan, UT	08/22/13	08/15/13
83017	Ryerson (State/One-Stop)	Jenison, MI	08/23/13	08/21/13
83018	Gamesa Wind (Union)	Ebensburg, PA	08/23/13	08/21/13
83019	Springs Global US (Company)	Lancaster, SC	08/23/13	08/14/13
83020	Critical Logic Inc (Workers)	Spokane Valley, WA	08/23/13	07/19/13

[FR Doc. 2013–22076 Filed 9–10–13; 8:45 am]

BILLING CODE 4510–FN–P

DEPARTMENT OF LABOR

Office of Workers' Compensation Programs

Proposed Extension of Existing Collection; Comment Request

ACTION: Notice.

SUMMARY: The Department of Labor, as part of its continuing effort to reduce paperwork and respondent burden, conducts a pre-clearance consultation program to provide the general public and Federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95) [44 U.S.C. 3506(c)(2)(A)]. This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. Currently, the Office of Workers' Compensation Programs is soliciting comments concerning the proposal to extend OMB approval of the information collection: Operator Response to Schedule for Submission of Additional Evidence (CM–2970) and Operator Response to Notice of Claim (CM–2970a). A copy of the proposed information collection request can be obtained by contacting the office listed below in the **ADDRESSES** section of this Notice.

DATES: Written comments must be submitted to the office listed in the **ADDRESSES** section below on or before November 12, 2013.

ADDRESSES: Ms. Yoon Ferguson, U.S. Department of Labor, 200 Constitution Ave. NW., Room S–32331, Washington, DC 20210, telephone (202) 693–0701, fax (202) 693–1447, Email *Ferguson.Yoon@dol.gov.* Please use only one method of transmission for comments (mail, fax, or Email).

SUPPLEMENTARY INFORMATION:

I. Background

The Division of Coal Mine Workers' Compensation administers the Black Lung Benefits Act (30 U.S.C. 901 *et seq.*) which provides benefits to coal miners totally disabled due to pneumoniosis, and their surviving dependents. When the Division of Coal Mine Workers' Compensation (DCMWC) makes a preliminary analysis of a claimant's eligibility for benefits, and if a coal mine operator has been identified as potentially liable for payment of those benefits, the responsible operator is notified of the preliminary analysis. Regulations require that a coal mine operator be identified and notified of potential liability as early in the adjudication process as possible. Regulatory authority is found in 20 CFR 725.410 for the CM–2970 and 20 CFR 725.408 for the CM–2970a. This information collection is currently approved for use through January 31, 2014.

II. Review Focus

The Department of Labor is particularly interested in comments which:

- 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 methodology 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 submissions of responses.

III. Current Actions

The Department of Labor seeks the approval for the extension of this currently-approved information collection in order to carry out its responsibility to administer the Black Lung Benefits Act.

Agency: Office of Workers' Compensation Programs.

Title: Operator Response to Schedule for Submission of Additional Evidence (CM–2970) and Operator Response to Notice of Claim (CM–2970a).

OMB Number: 1240–0033.

Agency Number: CM–2970 and CM–2970a.

Affected Public: Business or other for profit.

Form	Time to complete (minutes)	Frequency of response	Number of respondents	Number of responses	Hours burden
CM–2970	10	occasion	4800	4800	800
CM–2970A	15	occasion	4800	4800	1200
Totals			9600	9600	2000

Total Respondents: 9,600.

Total Annual Responses: 9,600.

Average Time per Response: 10–15 minutes.

Estimated Total Burden Hours: 2000.

Frequency: On occasion.

Total Burden Cost (capital/startup): $0.

Total Burden Cost (operating/maintenance): $4,704.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

Dated: September 5, 2013.

Yoon Ferguson,

Agency Clearance Officer, Office of Workers' Compensation Programs, U.S. Department of Labor.

[FR Doc. 2013–22124 Filed 9–10–13; 8:45 am]

BILLING CODE 4510–CK–P

DEPARTMENT OF LABOR

Office of Workers' Compensation Programs

Proposed Extension of Existing Collection; Comment Request

ACTION: Notice.

SUMMARY: The Department of Labor, as part of its continuing effort to reduce paperwork and respondent burden, conducts a pre-clearance consultation program to provide the general public and Federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95) [44 U.S.C. 3506(c)(2)(A)]. This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. Currently, the Office of Workers' Compensation Programs is soliciting comments concerning the proposal to extend OMB approval of the information collection: Application for Approval of a Representative's Fee in Black Lung Claim Proceedings Conducted by the U.S. Department of Labor (CM–972). A copy of the proposed information collection request can be obtained by contacting the office listed below in the addresses section of this Notice.

DATES: Written comments must be submitted to the office listed in the addresses section below on or before November 12, 2013.

ADDRESSES: Ms. Yoon Ferguson, U.S. Department of Labor, 200 Constitution Ave. NW., Room S-32331, Washington, DC 20210, telephone (202) 693-0701, fax (202) 693-1447, Email *Ferguson.Yoon@dol.gov.* Please use only one method of transmission for comments (mail, fax, or Email).

SUPPLEMENTARY INFORMATION:

I. *Background:* Individuals filing for benefits under the Black Lung Benefits Act (BLBA) may elect to be represented or assisted by an attorney or other representative. For those cases that are approved, 30 U.S.C. 901 of the Black Lung Benefits Act and 20 CFR 725.365–6 established standards for the information and documentation that must be submitted to the Program for review to approve a fee for services. The CM–972 is used to collect the pertinent data to determine if the representative's services and amounts charged can be paid under the Black Lung Act. This information collection is currently approved for use through January 31, 2014.

II. *Review Focus:* The Department of Labor is particularly interested in comments which:

- 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 methodology 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 submissions of responses.

III. *Current Actions:* The Department of Labor seeks the approval for the extension of this currently-approved information collection in order to gather information to determine the amounts of Black Lung benefits paid to beneficiaries. Black Lung amounts are reduced dollar for dollar, for other Black Lung related workers' compensation awards the beneficiary may be receiving from State or Federal programs.

Agency: Office of Workers' Compensation Programs

Title: Application for Approval of a Representative's Fee in Black Lung Claim Proceedings Conducted by the U.S. Department of Labor

OMB Number: 1240–0011

Agency Number: CM–972

Affected Public: Business or other for-profit.

Total Respondents: 338

Total Annual Responses: 338

Average Time per Response: 42 minutes

Estimated Total Burden Hours: 237

Frequency: On occasion

Total Burden Cost (capital/startup): $0

Total Burden Cost (operating/maintenance): $0

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

Dated: September 5, 2013.

Yoon Ferguson,

Agency Clearance Officer, Office of Workers' Compensation Programs, U.S. Department of Labor.

[FR Doc. 2013–22125 Filed 9–10–13; 8:45 am]

BILLING CODE 4510–CK–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 13–111]

National Environmental Policy Act; Mars 2020 Mission

AGENCY: National Aeronautics and Space Administration (NASA).

ACTION: Notice of intent to prepare an environmental impact statement (EIS) for the Mars 2020 mission and to conduct scoping for the EIS.

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321, et seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500–1508), and NASA policy and procedures (14 CFR part 1216 subpart 1216.3), NASA intends to conduct scoping and prepare an environmental impact statement (EIS) for the Mars 2020 mission. NASA is seeking input on environmental issues and concerns associated with the proposed action, as well as alternatives that should be addressed in the EIS. The mission would fly a near-duplicate of the Mars Science Laboratory mission's rover, Curiosity, outfitted with new scientific instruments. The mission would be designed to seek signs of past life on Mars, collect and store a compelling set of soil and rock samples that could be returned to Earth in the future, and test new technology to benefit future robotic and human exploration of Mars.

The Proposed Action is to continue preparation for and implement the Mars 2020 mission. The Mars 2020 mission would launch the spacecraft from the Cape Canaveral Air Force Station (CCAFS), Brevard County, Florida during the summer of 2020. NASA would select the launch vehicle for the mission through NASA's launch services procurement process. There is a backup launch opportunity for the mission during the summer of 2022. The baseline mission plan would include the use of one multi-mission radioisotope thermoelectric generator (MMRTG) for rover electrical power and temperature control while on the surface of Mars. Some science instruments may require the use of small quantities of radioactive material for instrument calibration or for experimentation. Environmental impacts to be considered in the EIS are those impacts associated with a normal launch from CCAFS, and radiological and non-radiological risks associated with a potential launch accident.

DATES: Interested parties are invited to submit comments on environmental concerns in writing on or before October 30, 2013 to assure full consideration during the scoping process. NASA will conduct scoping meetings to solicit and collect comments on the scope of the Mars 2020 mission EIS as well as the Proposed Action in October 2013.

ADDRESSES: Written comments should be addressed to Mr. George Tahu, Planetary Science Division, Science Mission Directorate, Mail Suite 3E46, NASA Headquarters, Washington, DC 20546–0001. Comments by electronic mail may be sent to *mars2020-nepa@lists.nasa.gov.* Those persons requesting to receive a hard copy of the Mars 2020 Draft EIS should also provide a valid US Postal Service mailing address.

FOR FURTHER INFORMATION CONTACT: Mr. George Tahu, by telephone at 202–358–0016 or by electronic mail at *mars2020-nepa@lists.nasa.gov.*

Additional information is available at *http://www.nasa.gov/agency/nepa/mars2020eis.*

SUPPLEMENTARY INFORMATION: NASA seeks to continue scientific investigations of Mars with a long-term landed mission to explore the planet's surface. On April 12, 2005, in the **Federal Register** (70 FR 19102), NASA published the Notice of Availability for Final Programmatic EIS (PEIS) for the Mars Exploration Program (MEP). The Record of Decision (ROD) for the MEP PEIS was signed on June 22, 2005, enabling continued planning for the MEP, which represents NASA's overall plans for the robotic exploration of Mars through 2020. The PEIS for the MEP encompasses the launch of at least one spacecraft to Mars during each favorable launch opportunity, which occurs approximately every 26 months. The Mars 2020 EIS will focus on reasonable alternatives to implement the purpose and need of the Mars 2020 mission and the potential environmental impacts associated with each.

NASA's proposed Mars 2020 mission would use the proven design and technology developed for the Mars Science Laboratory mission and rover (Curiosity) that arrived at Mars in August 2012. NASA would select a high priority, scientifically important landing site based upon data from past and current missions.

The rover would be equipped with new scientific instrumentation that would: (a) Characterize the geological processes and history of an astrobiologically relevant ancient environment on Mars; (b) within the selected geological environment, assess the past habitability of the landing region and search for evidence of past life; (c) assemble a scientifically selected, well-documented, cache of samples for potential future return to the Earth; (d) further the preparation for future human exploration of Mars; and (e) demonstrate improved technical capabilities for landing and operating on the surface of Mars to benefit future Mars missions.

It is anticipated that the electrical, thermal and operational requirements of the rover would require a radioisotope power source (MMRTG) using plutonium-238. This single MMRTG would provide adequate power to operate the rover, similar to the Mars Curiosity rover. Some of the waste heat from the MMRTG would be used for temperature control of the rover electronics, science instruments, and other sensitive components. Alternatives to the Proposed Action addressed in this EIS will include, but are not necessarily limited to, (1) the use of alternative sources of on-board power and heat (including solar energy); and (2) the No Action Alternative. The Mars 2020 EIS will address the purpose and need for the proposed Mars 2020 mission and the environmental impacts associated with its implementation. The environmental impacts of this mission are anticipated to be those associated with the normal launch of the mission. Potential consequences of accident situations will also be addressed. Environmental issues to be addressed will include, but not necessarily be limited to, air quality, water quality, flora and fauna, and potential radiological effects.

NASA plans to hold two scoping meetings to receive comments on the

DEIS regarding alternatives and environmental issues to be considered in the Draft EIS. The scoping meetings are scheduled as follows:

1. Cocoa Beach, FL, Wednesday, October 9, 2013 from 6:00–8:30 p.m. at Cocoa Beach Country Club, 5000 Tom Warriner Boulevard, Cocoa Beach, FL 32931.
2. Viera, FL, Thursday, October 10, 2013 from 6:00–8:30 p.m. at Brevard County Government Center, 2725 Judge Fran Jamieson Way, Viera, FL 32940.

Written public input and comments on alternatives and potential environmental impacts and concerns associated with the proposed Mars 2020 mission are hereby requested.

Calvin Williams,

Director, Integrated Asset Management Division, Office Strategic Infrastructure.

[FR Doc. 2013–22116 Filed 9–10–13; 8:45 am]

BILLING CODE 7510–13–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 13–112]

National Environmental Policy Act; Santa Susana Field Laboratory

AGENCY: National Aeronautics and Space Administration (NASA).

ACTION: Notice of Extension of the Comment Period for the Draft Environmental Impact Statement (DEIS) for Demolition and Environmental Cleanup Activities for the NASA-administered portion of the Santa Susana Field Laboratory (SSFL), Ventura County, California.

SUMMARY: A Notice of Availability (NOA) for the DEIS for Demolition and Cleanup Activities for the NASA-administered portion of the Santa Susana Field Laboratory was published in the **Federal Register** by the U.S. Environmental Protection Agency (EPA) on August 2, 2013, Vol. 78, No. 149, page 46940.

NASA also published an NOA of the DEIS in the **Federal Register** on the same day (August 2, 2013, Vol. 78, No. 149, pages 47007–47009). The comment period for the DEIS was to end on September 16, 2013. This notice extends the comment period an additional fifteen days to October 1, 2013, to allow the public further time to comment on the DEIS.

DATES: Interested parties are invited to submit comments on environmental issues and concerns, preferably in writing by October 1, 2013.

ADDRESSES: Comments submitted by mail should be addressed to Allen Elliott, SSFL Project Director, NASA MSFC AS01, Building 4494, Huntsville, AL 35812. Comments may be submitted via email to *msfc-ssfl-eis@mail.nasa.gov.*

The DEIS may be reviewed at the following locations:

1. Simi Valley Library, 2969 Tapo Canyon Road, Simi Valley, CA 93063, Web site: *http://simivalleylibrary.org/home/,* Phone: (805) 526–1735
2. Platt Library, 23600 Victory Blvd., Woodland Hills, CA 91367, Web site: *http://www.lapl.org/branches/platt,* Phone: (818) 340–9386
3. California State University, Northridge Oviatt Library, 18111 Nordhoff Street, 2nd Floor, Room 265, Northridge, CA 91330, Web site: *http://library.csun.edu,* Phone: (818) 677–2285
4. Department of Toxic Substances Control, 9211 Oakdale Avenue, Chatsworth, CA 91311, Web site: *http://www.dtsc.ca.gov,* Phone: (818) 717–6521

The DEIS is available on the internet in Adobe® portable document format at *http://www.nasa.gov/agency/nepa/news/SSFL.html.*

The **Federal Register** Notice of Intent to prepare the DEIS, issued in the **Federal Register** on July 6, 2011, is also available on the Internet at *http://ssfl.msfc.nasa.gov/public-involvement/.*

FOR FURTHER INFORMATION CONTACT: Allen Elliott, SSFL Project Director, by phone at (256) 544–0662 or by email at *msfc-ssfl-eis@mail.nasa.gov.* Additional information about NASA's SSFL site, the proposed demolition and cleanup activities, and the associated EIS planning process and documentation (as available) may be found on the Internet at *http://ssfl.msfc.nasa.gov.*

SUPPLEMENTARY INFORMATION:

Decision To Be Made

This DEIS informs NASA decision makers, regulating agencies, and the public of the potential environmental consequences of the proposed demolition of SSFL buildings and structures and the proposed technologies for groundwater and soil remediation, as implemented through the Proposed Action. This DEIS analyzes a range of remedial technologies that might be implemented to achieve the proposed groundwater and soil remediation goals. NASA will use the DEIS analysis to consider the potential environmental, economic, and social impacts from the Proposed Action. On the basis of the DEIS findings, NASA will issue a Record of Decision (ROD) documenting the findings. The ROD will further identify which buildings will be demolished to support disposition of the property, and which remedial technology(ies) would will be applied to meet the soil cleanup and groundwater quality goals.

The purpose of this notice is to apprise interested agencies, organizations, tribal governments, and individuals of the availability of the DEIS and to invite comments on the document. NASA will hold public meetings as part of the DEIS review process.

Site Description

The SSFL site is 2,850 acres located in Ventura County, California, approximately seven miles northwest of Canoga Park and approximately 30 miles northwest of downtown Los Angeles. SSFL is composed of four areas known as Areas I, II, III, and IV and two unnumbered areas known as the ''undeveloped land.'' NASA administers 41.7 acres within Area I and all 409.5 acres of Area II. The Boeing Company manages the remaining 2,398.8 acres within Areas I, III, and IV, and the two undeveloped areas.

Since the mid-1950s, when the two federally owned areas were owned by the U.S. Air Force, this site has been used for developing and testing rocket engines. Four test stand complexes were constructed in Area II between 1954 and 1957 named Alfa, Bravo, Coca, and Delta. Area II and the LOX Plant portion of Area I were acquired by NASA from the U.S. Air Force in the 1970s. These test stands and related ancillary structures have been found to have historical significance based on the historic importance of the engine testing and the engineering and design of the structures.

The NASA-administered areas of SSFL also contain cultural resources not related to rocket development. SSFL is located near the crest of the Simi Hills that are part of the Santa Monica Mountains running east-west across Southern California. The diverse terrain consists of ridges, canyons, and sandstone rock outcrops. The region was occupied by Native Americans from the earliest Chumash, Tongva, and Tataviam cultures. NASA has conducted several previous surveys to locate archaeological and architectural resources within its portion of the SSFL. As a result, NASA has identified one historic property, the Burro Flats Painted Cave, that is listed on the National Register of Historic Places (NRHP), as well as multiple buildings and structures that are either

individually eligible for listing on the NRHP or are elements of NRHP-eligible historic districts containing multiple architectural resources.

Previous environmental sampling on the NASA-administered property indicates that metals, dioxins, polychlorinated biphenyls (PCBs), volatile organics, and semivolatile organics are present in the soils and upper groundwater (known as the Surficial Media Operable Unit). Volatile organics, metals, and semivolatile organics are also present in the deeper groundwater (known as the Chatsworth Formation Operable Unit).

Environmental Commitments and Associated Environmental Review

Rocket engine testing has been discontinued at these sites and the property has been excessed to the General Services Administration (GSA). GSA has conditionally accepted the Report of Excess pending (i) NASA's certification that all action necessary to protect human health and the environment with respect to hazardous substances on the property has been taken or receipt of EPA's written concurrence that an approved and installed remedial design is operating properly and successfully; OR (ii) the Governor's concurrence in the suitability of the property for transfer per CERCLA Section 120(h)(3)(C).

In 2007, a Consent Order among NASA, Boeing, the Department of Energy (DOE), and Department of Toxic Substances Control (DTSC) for the State of California was signed addressing the demolition of certain infrastructure and environmental cleanup of SSFL. NASA entered into an Administrative Order on Consent (AOC) for Remedial Action with DTSC on December 6, 2010, ''to further define and make more specific NASA's obligations with respect to the cleanup of soils at the Site.'' Based on the 2010 AOC, NASA is required to complete a federal environmental review pursuant to NEPA. ''An EIS is being prepared by NASA to include demolition of site infrastructure and soil cleanup (pursuant to the AOC), and groundwater remediation within Area II and a portion of Area I (Liquid Oxygen [LOX] Plant) of SSFL (pursuant to the 2007 Consent Order).'' As part of the environmental review process, certain studies have been or are being completed, to characterize the existing conditions and to inform the analysis and consultation. These include surveys for wildlife, critical habitat, rare plants, wetlands, and archaeological and cultural resources. The findings of these studies are being incorporated into the DEIS.

Alternatives

To prepare SSFL for disposition, NASA describes the demolition of SSFL structures and cleanup of the site necessary to meet only the strictest cleanup alternative, as dictated by the 2007 Consent Order and the 2010 AOC requirements, and the ''No Action'' alternative required by NEPA. During the Scoping Process, per the standard consistent with the alternatives evaluated under previous Superfund or Resource Conservation and Recovery Act (RCRA) cleanup processes, NASA originally proposed to evaluate a range of cleanup standard levels, including the ''Cleanup to Background'' alternative required by the AOC, the ''No Action'' alternative required by NEPA, and other alternatives that are, consistent with the potential future use of the land. The latter alternatives include soil cleanup requirements to suburban residential, to industrial, and to recreational cleanup standards. Based on comments from some members of the public, DTSC, Senator Boxer, and guidance from the White House's Council on Environmental Quality, the DEIS now considers only the strictest ''Cleanup to Background'' and the least effective ''No Action'' alternatives. All other cleanup alternatives, consistent with both the Scoping Process and the potential future use of the land, were specifically removed from the DEIS.

The DEIS will consider a range of alternative technologies that meet NASA's objectives to clean up soil and groundwater contamination at the portion of the SSFL site administered by NASA. Implementation of this Proposed Action would occur by implementing one Demolition Alternative and one or more Cleanup Technologies, from the following: (1) Soil Cleanup Technologies: Excavation and Offsite Disposal, Soil Washing, Soil Vapor Extraction, Ex Situ Treatment Using Land Farming, Ex Situ Treatment Using oxidation, In Situ Chemical Oxidation, In Situ Anaerobic or Aerobic Biological Treatment; (2) Groundwater Treatment Technologies: Pump and Treat, Vacuum Extraction, Heat Driven Extraction, In situ Chemical Oxidation, In situ Enhanced Bioremediation, and Monitored Natural Attenuation.

NEPA requires analysis of the ''No Action'' alternative which in this case means no environmental cleanup at the site and/or no demolition of test stands and ancillary structures on the NASA-administered property.

GSA will conduct a separate environmental review under NEPA for the action of transferring the land out of NASA stewardship. The options could include reuse or redevelopment of the property under local, state, or private ownership.

DTSC is preparing a separate Environmental Impact Report (EIR) under the California Environmental Quality Act, which requires that State agencies give major consideration, when regulating public and private activities, to preventing environmental degradation and to identifying environmentally superior mitigations and alternatives, when possible. This State-led environmental review must identify the potentially significant environmental effects of a project and environmentally preferable alternatives to implementing the project. The EIR also indicates the manner in which significant effects could be mitigated or avoided. DTSC will analyze the potential environmental effects of environmental cleanup activities occurring SSFL-wide by NASA, Boeing, and DOE. NASA and DTSC have coordinated during these processes to maintain consistency pertaining to the analysis of the NASA-administered demolition and remedial activities. Cumulative effects of the proposed Boeing, DOE, and NASA demolition and remedial activities at SSFL will be considered. The DTSC EIR is likely to be prepared following publication of NASA's EIS, and could incorporate some of NASA's EIS analysis. A programmatic EIR will be developed that evaluates the remedial activities that will be conducted at SSFL by NASA, Boeing, and DOE, as well as project-specific EIRs that evaluate the localized remedial activities.

Public Meetings

NASA plans to hold two public meetings to receive comments on the DEIS regarding alternatives and environmental issues to be considered in the DEIS. The public meetings are scheduled as follows:

1. Corporate Pointe, West Hills, CA, Tuesday, August 27, 2013 from 2:00–4:00 p.m. at the Auditorium, 8413 Fallbrook Avenue, West Hills, CA 91304
2. Corporate Pointe, West Hills, CA, Wednesday, August 28, 2013 from 6:00–8:00 p.m. at the Auditorium, 8413 Fallbrook Avenue, West Hills, CA 91304

NASA will consider all comments received in developing its Final EIS; comments received and responses to comments will be included in the Final document. In conclusion, written public input on environmental issues and

concerns associated with NASA's cleanup of SSFL are hereby requested.

Calvin Williams,

Director, Integrated Asset Management Division, Office of Strategic Infrastructure.

[FR Doc. 2013–22118 Filed 9–10–13; 8:45 am]

BILLING CODE 7510–13–P

NUCLEAR REGULATORY COMMISSION

[NRC–2013–0103]

Compensatory and Alternative Regulatory Measures for Nuclear Power Plant Fire Protection (CARMEN–FIRE)

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft NUREG/CR, reopening of comment period.

SUMMARY: On July 29, 2013, the U.S. Nuclear Regulatory Commission (NRC) published in the **Federal Register** (78 FR 45573) a request for public comment on NUREG/CR–7135, ''Compensatory and Alternative Regulatory Measures for Nuclear Power Plant Fire Protection (CARMEN–FIRE).'' In response to comments from members of the public, the NRC is reopening the public comment period until September 25, 2013.

DATES: The comment period has been reopened and expires on September 25, 2013. Comments received after this date will be considered if it is practical to do so, but the NRC staff is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- *Federal Rulemaking Web site:* Go to *http://www.regulations.gov* and search for Docket ID NRC–2013–0103. Address questions about NRC dockets to Carol Gallagher; telephone: 301–287–3442; email: *Carol.Gallagher@nrc.gov.* For technical questions, contact the individual(s) listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.
- *Mail comments to:* Cindy Bladey, Chief, Rules, Announcements, and Directives Branch (RADB), Office of Administration, Mail Stop: 3WFN–06–44M, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

For additional direction on accessing information and submitting comments, see ''Accessing Information and Submitting Comments'' in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Felix E. Gonzalez, Division of Risk Analysis, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–251–7596, email: *Felix.Gonzalez@nrc.gov*

SUPPLEMENTARY INFORMATION:

I. Accessing Information and Submitting Comments

A. Accessing Information

Please refer to Docket ID NRC–2013–0103 when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this document by any of the following methods:

- *Federal Rulemaking Web site:* Go to *http://www.regulations.gov* and search for Docket ID NRC–2013–0103.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may access publicly available documents online in the NRC Library at *http://www.nrc.gov/reading-rm/adams.html.* To begin the search, select *''ADAMS Public Documents''* and then select *''Begin Web-based ADAMS Search.''* For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to *pdr.resource@nrc.gov.* The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.
- *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1–F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID NRC–2013–0103 in the subject line of your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in you comment submission. The NRC will post all comment submissions at *http://www.regulations.gov* as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, 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 the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

I. Background

Employing appropriate compensatory measures, on a short-term basis, is an integral part of NRC-approved fire protection programs. However, compensatory measures are not expected to be in place for an extended period of time. The NRC staff expects that the corrective action(s) will be completed, and reliance on the compensatory measure eliminated, at the first available opportunity, typically the first refueling outage. Thus, a compensatory measure that is in place beyond the next refueling outage (typically 18–24 months) is considered to be a '' *long-term compensatory measure.''*

This report is intended to serve as a reference guide for agency staff responsible for evaluating the acceptability of alternative interim compensatory measures provided to offset the degradation in fire safety caused by impaired fire protection features at nuclear power plants. The report documents the history of compensatory measures and details the regulatory framework established by NRC to ensure they are appropriately implemented and maintained. This report also explores technologies that did not exist when the current plants were licensed such as video-based detection, temporary penetration seals and portable suppression systems which under certain conditions may provide an effective alternative to traditional measures specified in a plant's approved fire protection program.

The NRC is seeking public comment in order to receive feedback from the widest range of interested parties and to ensure that all information relevant to the information contained within this document is correct and accurate. We are specifically interested in receiving feedback on the following questions:

1. Do licensees differentiate between compensatory measures related to impaired structures, systems, and components (SSC) used for Reactor Post-Fire Safe-Shutdown Protection vs. impaired classical Fire Protection (FP)

systems? If so, please provide information on the differences between the two.

2. Are there any other examples of Alternative Compensatory Measures (e.g., other new technology) not already discussed in the NUREG/CR that should be considered? If so, please provide information on these alternative compensatory measures.

3. Are there any issues, concerns or better suggestions regarding the examples or technologies discussed in the NUREG/CR? If so, please provide your suggestions.

This document is issued for comment only and is not intended for interim use. The NRC will review public comments received on the documents, incorporate suggested changes as necessary, and make the final NUREG-report available to the public.

Dated at Rockville, Maryland, this 3rd day of September 2013.

For the Nuclear Regulatory Commission.

Mark Henry Salley,

Chief, Fire Research Branch, Division of Risk Analysis, Office of Nuclear Regulatory Research.

[FR Doc. 2013–22100 Filed 9–10–13; 8:45 am]

BILLING CODE 7590–01–P

OFFICE OF PERSONNEL MANAGEMENT

Submission for Review: Civil Service Retirement System Survivor Annuitant Express Pay Application for Death Benefits, RI 25–51

AGENCY: U.S. Office of Personnel Management.

ACTION: 60-day notice and request for comments.

SUMMARY: The Retirement Services, Office of Personnel Management (OPM) offers the general public and other Federal agencies the opportunity to comment on an extension, without change, of a currently approved information collection request (ICR) 3206–0233, Civil Service Retirement System Survivor Annuitant Express Pay Application for Death Benefits, RI 25–51. As required by the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. chapter 35) as amended by the Clinger-Cohen Act (Pub. L. 104–106), OPM is soliciting comments for this collection. The Office of Management and Budget is particularly interested in comments that:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of functions of OPM, including whether the information will have practical utility;

2. Evaluate the accuracy of OPM'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.

DATES: Comments are encouraged and will be accepted until November 12, 2013. This process is conducted in accordance with 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, Retirement Services, Union Square Room 370, 1900 E Street NW., Washington, DC 20415–3500, Attention: Alberta Butler, or sent by email to *Alberta.Butler@opm.gov.*

FOR FURTHER INFORMATION CONTACT: A copy of this ICR with applicable supporting documentation, may be obtained by contacting the Retirement Services Publications Team, Office of Personnel Management, 1900 E Street NW., Room 4445–P, Washington, DC 20415, Attention: Cyrus S. Benson, or sent by email to *Cyrus.Benson@opm.gov* or faxed to (202) 606–0910.

SUPPLEMENTARY INFORMATION: RI 25–51 will be used by the Civil Service Retirement System solely to pay benefits to the widow(er) of an annuitant. This application is intended for use in immediately authorizing payments to an annuitant's widow or widower, based on the report of death, when our records show the decedent elected to provide benefits for the applicant.

Analysis:

Agency: Retirement Operations, Retirement Services, Office of Personnel Management.

Title: Civil Service Retirement System Survivor Annuitant Express Pay Application for Death Benefits.

OMB: 3206–0233.

Frequency: On occasion.

Affected Public: Individuals or Households.

Number of Respondents: 34,800.

Estimated Time Per Respondent: 30 minutes.

Total Burden Hours: 17,400.

U.S. Office of Personnel Management.

Elaine Kaplan,

Acting Director.

[FR Doc. 2013–22065 Filed 9–10–13; 8:45 am]

BILLING CODE 6325–38–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–70327; File No. SR–Phlx–2013–85]

Self-Regulatory Organizations; NASDAQ OMX PHLX LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Rule 640, Continuing Education for Registered Persons and Adopt a Corresponding Fee

September 5, 2013.

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 August 22, 2013, NASDAQ OMX PHLX LLC (''Phlx'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II, below, which Items have been prepared by the Exchange. Phlx has designated the proposed rule change as constituting a non-controversial rule change under Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder,[4] which renders the proposal effective upon filing with 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 amend Rule 640, Continuing Education for Registered Persons, as described below, and to adopt a corresponding fee.

The text of the proposed rule change is below; proposed new language is italicized; proposed deletions are in brackets.

* * * * *

Rule 640. Continuing Education for Registered Persons

(a) Regulatory Element

(1) Requirements—No member organization shall permit any registered person to continue to, and no registered person shall continue to, perform duties as a registered person, unless such person has complied with the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

continuing education requirements of paragraph (a) of this Rule.

Each registered person shall complete the Regulatory Element of the continuing education program on the occurrence of their second registration anniversary date(s), and every three years thereafter or as otherwise prescribed by the Exchange. On each occasion, the Regulatory Element must be completed within 120 days after the person's registration anniversary date. A person's initial registration date, also known as the ''base date,'' shall establish the cycle of anniversary dates for purposes of this Rule.

Content. The content of the Regulatory Element of the program shall be determined by the Exchange for each registration category of persons subject to the Rule. *The following Regulatory Elements administered by FINRA shall be required:*

Persons registered solely as Proprietary Traders pursuant to Rule 613(f) must complete the S501.

Persons registered as General Securities Representatives pursuant to Rule 613(e) must complete the S101.

Persons registered in a supervisory capacity pursuant to Rules 611 and 612 must complete the S201.

* * * * *

NASDAQ OMX PHLX LLC [1] PRICING SCHEDULE

ALL BILLING DISPUTES MUST BE SUBMITTED TO THE EXCHANGE IN WRITING AND MUST BE ACCOMPANIED BY SUPPORTING DOCUMENTATION. ALL DISPUTES MUST BE SUBMITTED NO LATER THAN SIXTY (60) DAYS AFTER RECEIPT OF A BILLING INVOICE, EXCEPT FOR DISPUTES CONCERNING NASDAQ OMX PSX FEES, PROPRIETARY DATA FEED FEES AND CO-LOCATION SERVICES FEES. AS OF JANUARY 3, 2011, THE EXCHANGE WILL CALCULATE FEES ON A TRADE DATE BASIS

* * * * *

VII. OTHER MEMBER FEES

A. OPTION TRADING FLOOR FEES

No change.

B. PORT FEES

No change.

C. FINRA Fees

Continuing Education Fees [$75.00]

• The Continuing Education Fee will be assessed as to each individual who is required to complete the Regulatory Element of the Continuing Education Requirements pursuant to Exchange Rule 640. This fee is paid directly to FINRA.

$60.00 for each individual who is required to complete the Proprietary Trader Regulatory Element (S501).

$100.00 for each individual who is required to complete the S101 or S201.

FINRA, on behalf of the Exchange, will bill and collect these fees

The following fees will be collected and retained by FINRA via the Web CRD registration system for the registration of associated persons of Exchange members that are not also FINRA members:

(b)–(c) No change.

* * * * *

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 codify in Rule 640 the specific continuing education requirements that currently apply and to adopt a continuing education requirement for persons registered as Proprietary Traders. The Exchange also proposes to adopt a fee for the new continuing education program applicable to Proprietary Traders.

The Exchange adopted the Proprietary Trader [5] registration in 2012, working with various other exchanges and Financial Industry Regulatory Authority (''FINRA''). At that time, the Exchange stated that, as a result of the new registration requirements, additional persons will become subject to the Exchange's continuing education requirements in Rule 640. The Exchange stated that it would announce to the membership when these new requirements will be implemented and available for member organizations to access.[6]

At this time, the new continuing education program for Proprietary Traders will soon become available and will be administered by FINRA. The new program, the S501, is intended to address the specific continuing education of Proprietary Traders, based on the content outline for the Series 56 exam, which covers the main categories of rules and regulations generally applicable to such persons.[7] The Continuing Education Regulatory Element is a computer-based education program administered by FINRA on behalf of the Exchange to help ensure that registered persons are kept current on regulatory, compliance and trading practice matters in the industry.

The Exchange proposes to amend Rule 640(a) to specify the required Regulatory Element for each category of registered persons. Currently, Rule 640(a) provides that no member organization shall permit any registered person to continue to, and no registered person shall continue to perform duties as a registered person, unless such person has complied with the continuing education requirements of paragraph (a).[8] Each registered person shall complete the Regulatory Element of the continuing education program on the occurrence of their [sic] second registration anniversary date(s), and every three years thereafter or as otherwise prescribed by the Exchange. On each occasion, the Regulatory Element must be completed within 120 days after the person's registration anniversary date. A person's initial registration date, also known as the ''base date,'' shall establish the cycle of anniversary dates for purposes of this

[5] A Proprietary Trader is a person who is engaged solely in proprietary trading, market making or effecting transactions on behalf of a broker-dealer account. Phlx Rule 613(f).

[6] *See* Securities Exchange Act Release No. 66840 (April 20, 2012), 77 FR 25003 (April 26, 2012) (SR–Phlx–2012–23).

[7] These generally include recordkeeping and recording requirements, types and characteristics of securities and investments, trading practices and display execution and trading systems. *See* Securities Exchange Act Release No. 66645 (March 22, 2012), 77 FR 19042 (March 29, 2012) (SR–Phlx–2012–37).

[8] Rule 640.01 exempts most floor persons from this requirement. Nevertheless, pursuant to Rule 625, Phlx requires periodic mandatory training. Training topics include, but are not limited to, training related to that person's function at the Exchange, changes in existing automated systems or any new technology that is utilized by the Exchange, compliance with Exchange Rules and federal securities laws, and issues related to conduct, health and safety on the trading floor. In addition, floor members shall complete mandatory training programs, on at least a semi-annual basis, that address compliance with the federal securities laws and the Exchange's Rules in place to prevent and deter unlawful trading by floor members.

Rule. This applies to persons registered as Proprietary Traders as well.

The Rule further provides that the content of the Regulatory Element of the program shall be determined by the Exchange for each registration category of persons subject to the Rule. The Exchange now proposes to make this a separate ''Content'' section and to make clear which specific programs are required, including both existing programs (S101 and S201) as well as the new Proprietary Trader continuing education program (S501). The following Regulatory Elements administered by FINRA shall be required:

Persons registered solely as Proprietary Traders pursuant to Rule 613(f) must complete the S501.

Persons registered as General Securities Representatives pursuant to Rule 613(e) must complete the S101.

Persons registered in a supervisory capacity pursuant to Rules 611 and 612 must complete the S201.

The Exchange believes that specifying the applicable Regulatory Element in the Rule should be helpful to members and member organizations in complying with the Rule. Only one Regulatory Element is required. For example, members registered as supervisors are subject to the S201 only; they do not also have to complete the Regulatory Element applicable to their prerequisite registration, such as the S501 or the S101.[9] This proposal does not change the registration requirements.

The Exchange also proposes to adopt a fee applicable to Proprietary Trader Regulatory Element. Currently, the applicable fee for the Regulatory Element (S101 and S201) is $100.[10] The Exchange proposes to adopt a $60.00 fee for the S501. FINRA administers these programs on behalf of the exchanges and therefore the fees are payable directly to FINRA.[11] The $60 fee will only be used for the administration of the S501 versus the S101 which utilizes the $100 fee for both development and administration. The costs associated with the development of the S501 are included in the examination fee.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act[12] in general, and furthers the objectives of: (1) Section 6(c)(3)(B) of the Act,[13] pursuant to which a national securities exchange prescribes standards of training, experience and competence for members and their associated persons; and (2) Section 6(b)(5) of the Act,[14] in that it is designed, among other things, to prevent fraudulent and manipulative acts and practices, 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 requiring registered persons to complete the applicable continuing education program. The Exchange believes that a strong continuing education program should bolster the integrity of the Exchange by helping to ensure that all associated persons engaged in a securities business are, and will continue to be, properly trained and qualified to perform their functions. The Exchange does not believe that the proposal is unfairly discriminatory with respect to persons registered as a General Securities Representative who function in their current job as a Proprietary Trader, even though these persons are subject to the more stringent S101 rather than the S501; such persons are registered and qualified (Series 7) in a ''higher'' capacity and are therefore qualified to function in a capacity other than a Proprietary Trader, whether they choose to or not. Accordingly, requiring the S101 for such persons is appropriate and facilitates them being able to maintain their ''higher'' registration. The Exchange also believes that permitting General Securities Representatives functioning as Proprietary Traders to be [sic] complete the S501 would be confusing and difficult to monitor.

The Exchange also believes that the proposal furthers the objectives of Section 6(b)(4) of the Act,[15] in that it provides for an equitable allocation of reasonable fees and other charges among Exchange members and other persons using its facilities. Specifically, the new $60 fee is applicable to persons registered as a Proprietary Trader, which is a limited registration under Exchange rules. Accordingly, the proposed S501 Regulatory Element specifically correlates to the rules and obligations applicable to Proprietary Traders, which are fewer than those applicable to persons registered in other categories. Thus, the S501 is a more limited form of continuing education. Therefore, the Exchange believes that the lower fee ($60 rather than $100) is reasonable.[16] The proposed fee is equitable, because it applies equally to all persons registered solely as Proprietary Traders.

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 not necessary or appropriate in furtherance of the purposes of the Act. Because the Regulatory Element is administered by FINRA, the fees are paid to FINRA, which does not raise competition issues. All of the exchanges that recognize the Proprietary Trader registration category are expected to adopt the same continuing education fee. All Proprietary Traders, regardless of where they are registered, will be subject to same continuing education requirements and the same continuing education fees. Thus, the proposal treats similarly situated persons in the same way.

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)(ii) of the Act[17] and subparagraph (f)(6) of Rule 19b–4 thereunder.[18]

[9] In the event that a person is registered both as a Proprietary Trader and a General Securities Representative, only one Regulatory Element is required—the ''higher'' of the two, which is the S101.

[10] The Exchange's fee schedule incorrectly states that the fee is $75.00; the Exchange is proposing to correct this.

[11] The S501 was established for those registrants who have passed the Series 56 Qualification Exam as reflected in WebCRD. WebCRD is the central licensing and registration system for the U.S. securities industry. The CRD system enables individuals and firms seeking registration with multiple states and self-regulatory organizations to do so by submitting a single form, fingerprint card and a combined payment of fees to FINRA. Through the CRD system, FINRA maintains the qualification, employment and disciplinary histories of registered associated persons of broker-dealers.

[12] 15 U.S.C. 78f(b).

[13] 15 U.S.C. 78(c)(3)(B).

[14] 15 U.S.C. 78f(b)(5).

[15] 15 U.S.C. 78f(b)(4).

[16] The Commission notes that in the Purpose section of this filing, Phlx accurately states that the $100 fee for the S101 covers the costs associated with both development and administration of the continuing education program, while the $60 fee for the S501 only covers the cost of administration.

[17] 15 U.S.C. 78s(b)(3)(a)(ii).

[18] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) requires a self-regulatory organization to give

The Exchange has requested that the Commission waive the 30-day operative delay. The proposed rule change: Specifies the continuing education requirements that currently apply to registered persons; adopts a continuing education requirement, the S501, and a related fee for persons registered as Proprietary Traders; and corrects the Exchange's fee schedule to reflect the proper fee, $100 rather than $75, for the S101 and S201. Waiver of the operative delay would allow the Exchange to clarify and correct its rules and implement the proposed rule change at once, enabling its Members to comply with their continuing education requirements in a timely manner, and thus is consistent with the protection of investors and the public interest. Therefore, the Commission designates the proposal operative upon filing.[19]

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: (i) Necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will 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–Phlx–2013–85 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2013–85. 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 Web site (*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 Web site 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; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR–Phlx–2013–85 and should be submitted on or before October 2, 2013.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[20]

Kevin M O'Neill,

Deputy Secretary.

[FR Doc. 2013–22058 Filed 9–10–13; 8:45 am]

BILLING CODE 8011–01–P

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.

[19] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[20] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

North China Horticulture, Inc., File No. 500–1; Order of Suspension of Trading

September 6, 2013.

It appears to the Securities and Exchange Commission that there is a lack of current and accurate information concerning the securities of North China Horticulture, Inc. because it has not filed any periodic reports since the period ended September 30, 2011.

The Commission is of the opinion that the public interest and the protection of investors require a suspension of trading in the securities of the above-listed company. Therefore, it is ordered, pursuant to Section 12(k) of the Securities Exchange Act of 1934, that trading in the securities of the above-listed company is suspended for the period from 9:30 a.m. EDT on September 6, 2013, through 11:59 p.m. EDT on September 19, 2013.

By the Commission.

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2013–22137 Filed 9–6–13; 4:15 pm]

BILLING CODE 8011–01–P

SMALL BUSINESS ADMINISTRATION

Reporting and Recordkeeping Requirements Under OMB Review

AGENCY: Small Business Administration.

ACTION: Notice of 30 day Reporting Requirements Submitted for OMB Review.

SUMMARY: Under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35), agencies are required to submit proposed reporting and recordkeeping requirements to OMB for review and approval, and to publish a notice in the **Federal Register** notifying the public that the agency has made such a submission.

DATES: Submit comments on or before October 11, 2013. If you intend to comment but cannot prepare comments promptly, please advise the OMB Reviewer and the Agency Clearance Officer before the deadline.

Copies: Request for clearance (OMB 83–1), supporting statement, and other documents submitted to OMB for review may be obtained from the Agency Clearance Officer.

ADDRESSES: Address all comments concerning this notice to: *Agency Clearance Officer,* Curtis Rich, Small Business Administration, 409 3rd Street SW., 5th Floor, Washington, DC 20416; and *OMB Reviewer,* Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Curtis Rich, Agency Clearance Officer, (202) 205–7030 *curtis.rich@sba.gov.*

Abstract: SBA Forms 2181, 2182 and 2183 provide SBA with the necessary information to make informed and proper decisions regarding the approval or denial of an applicant for a small business investment company (SBIC) license. SBA uses this information to assess an applicant's ability to successfully operate an SBIC with the

scope of the Small Business Investment Act, as amended.

SUPPLEMENTARY INFORMATION: *Title:* SBIC License Application.

Frequency: On Occasion.

SBA Form Number's: 2181, 2182, 2183.

Description of Respondents: Small Business Owners and Farmers.

Responses: 400.

Annual Burden: 7370.

Curtis Rich,

Management Analyst.

[FR Doc. 2013–22046 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

Disaster Declaration #13737 and #13738

[Tennessee Disaster #TN–00077]

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Administrative declaration of a disaster for the State of TENNESSEE dated 08/26/2013.

Incident: Severe Storms and Flooding.

Incident Period: 08/08/2013 through 08/09/2013.

DATES: *Effective Date:* 08/26/2013.

Physical Loan Application Deadline Date: 10/25/2013.

Economic Injury (EIDL) Loan Application Deadline Date: 05/26/2014.

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.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Davidson.

Contiguous Counties:

Tennessee: Cheatham; Robertson; Rutherford; Sumner; Williamson; Wilson.

The Interest Rates are:

	Percent
For Physical Damage:	
Homeowners With Credit Available Elsewhere	3.875
Homeowners Without Credit Available Elsewhere	1.937
Businesses With Credit Available Elsewhere	6.000
Businesses Without Credit Available Elsewhere	4.000
Non-Profit Organizations With Credit Available Elsewhere	2.875
Non-Profit Organizations Without Credit Available Elsewhere	2.875
For Economic Injury:	
Businesses & Small Agricultural Cooperatives Without Credit Available Elsewhere	4.000
Non-Profit Organizations Without Credit Available Elsewhere	2.875

The number assigned to this disaster for physical damage is 13737 6 and for economic injury is 13738 0.

The State which received an EIDL Declaration # is Tennessee.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

August 26, 2013.

Karen G. Mills,

Administrator.

[FR Doc. 2013–22061 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #13741 and #13742]

West Virginia Disaster #WV–00032

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Administrative declaration of a disaster for the State of West Virginia dated 08/29/2013.

Incident: Severe Storms and Heavy Rain.

Incident Period: 06/12/2013 through 06/19/2013.

Effective Date: 08/29/2013.

Physical Loan Application Deadline Date: 10/28/2013.

Economic Injury (EIDL) Loan Application Deadline Date: 05/29/2014.

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: Alan Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW., Suite 6050, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Roane.

Contiguous Counties:

West Virginia: Calhoun, Clay, Jackson, Kanawha, Wirt.

The Interest Rates are:

	Percent
For Physical Damage:	
Homeowners With Credit Available Elsewhere Homeowners Without	3.750
Credit Available Elsewhere Businesses With Credit Available	1.875
Elsewhere Businesses Without Credit Available Elsewhere	6.000
Non-Profit Organizations With Credit Available Elsewhere	4.000
Non-Profit Organizations Without Credit Available Elsewhere	2.875
For Economic Injury:	
Businesses & Small Agricultural Cooperatives Without Credit Available Elsewhere Non-Profit Organizations Without	4,000
Credit Available Elsewhere	2.875

The number assigned to this disaster for physical damage is 13741 6 and for economic injury is 13742 0.

The States which received an EIDL Declaration # are West Virginia.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Dated: August 29, 2013.

Karen G. Mills,

Administrator.

[FR Doc. 2013–22041 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #13743 and #13744]

Colorado Disaster #CO–00062

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Administrative declaration of a disaster for the State of Colorado dated 08/30/2013.

Incident: Manitou Springs Flash Flood.

Incident Period: 08/09/2013.

Effective Date: 08/30/2013.

Physical Loan Application Deadline Date: 10/29/2013.

Economic Injury (EIDL) Loan Application Deadline Date: 05/30/2014.

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.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: El Paso.

Contiguous Counties: Colorado: Crowley; Douglas; Elbert; Fremont; Lincoln; Pueblo Teller.

The Interest Rates are:

	Percent
For Physical Damage:	
Homeowners with credit available elsewhere	3.875
Homeowners without credit available elsewhere	1.937
Businesses with credit available elsewhere	6.000
Businesses without credit available elsewhere	4.000
Non-profit organizations with credit available elsewhere	2.875
Non-profit organizations without credit available elsewhere	2.875
For Economic Injury:	
Businesses & small agricultural cooperatives without credit available elsewhere	4.000
Non-profit organizations without credit available elsewhere	2.875

The number assigned to this disaster for physical damage is 13743 6 and for economic injury is 13744 0.

The States which received an EIDL Declaration # are Colorado.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Dated: August 30, 2013.

Karen G. Mills,

Administrator.

[FR Doc. 2013–22060 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #13739 and #13740]

California Disaster #CA–00207

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Administrative declaration of a disaster for the State of CALIFORNIA dated 08/26/2013.

Incident: Silver Fire.

Incident Period: 08/07/2013 through 08/14/2013.

Effective Date: 08/26/2013.

Physical Loan Application Deadline Date: 10/25/2013.

Economic Injury (EIDL) Loan Application Deadline Date: 05/26/2014.

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: Alan Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW., Suite 6050, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Riverside.

Contiguous Counties:

California: Imperial; Orange; San Bernardino; San Diego.

Arizona: La Paz.

The Interest Rates are:

	Percent
For Physical Damage:	
Homeowners With Credit Available Elsewhere	3.875
Homeowners Without Credit Available Elsewhere	1.937
Businesses With Credit Available Elsewhere	6.000
Businesses Without Credit Available Elsewhere	4.000
Non-Profit Organizations With Credit Available Elsewhere	2.875
Non-Profit Organizations Without Credit Available Elsewhere	2.875
For Economic Injury:	
Businesses & Small Agricultural Cooperatives Without Credit Available Elsewhere	4.000
Non-Profit Organizations Without Credit Available Elsewhere	2.875

The number assigned to this disaster for physical damage is 13739 5 and for economic injury is 13740 0.

The States which received an EIDL Declaration # are California; Arizona.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Dated: August 26, 2013.

Karen G. Mills,

Administrator.

[FR Doc. 2013–22062 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #13703 and #13704]

South Dakota Disaster Number SD–00061

AGENCY: U.S. Small Business Administration.

ACTION: Amendment 1.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for Public Assistance Only for the State of South Dakota (FEMA–4137–DR), dated 08/02/2013.

Incident: Severe Storms, Tornadoes, and Flooding.

Incident Period: 06/19/2013 through 06/29/2013.

DATES: *Effective Date:* 08/27/2013.

Physical Loan Application Deadline Date: 10/01/2013.

Economic Injury (EIDL) Loan Application Deadline Date: 05/02/2014.

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.

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for Private Non-Profit organizations in the State of South Dakota, dated 08/02/2013, is hereby amended to include the following areas as adversely affected by the disaster.

Primary Counties: Spink.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

James E. Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2013–22045 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #13633 and #13634]

Alaska Disaster Number AK–00028

AGENCY: U.S. Small Business Administration.

ACTION: Amendment 1.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for the State of Alaska (FEMA—4122—DR), dated 06/25/2013.

Incident: Flooding.

Incident Period: 05/17/2013 through 06/11/2013.

Effective Date: 08/28/2013.

Physical Loan Application Deadline Date: 09/25/2013.

EIDL Loan Application Deadline Date: 03/25/2014.

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

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for the State of Alaska, dated 06/25/2013 is hereby amended to extend the deadline for filing applications for physical damages as a result of this disaster to 09/25/2013.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

James E. Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2013–22044 Filed 9–10–13; 8:45 am]

BILLING CODE 8025–01–P

DEPARTMENT OF STATE

[Public Notice 8464]

Culturally Significant Objects Imported for Exhibition Determinations: ''American Adversaries: West and Copley in a Transatlantic World''

SUMMARY: Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.;* 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236–3 of August 28, 2000, and, as appropriate, Delegation of Authority No. 257 of April 15, 2003, I hereby determine that the objects to be included in the exhibition ''American Adversaries: West and Copley in a Transatlantic World,'' imported from abroad for temporary exhibition within the United States, are of cultural significance. The objects are imported pursuant to loan agreements with the foreign owners or custodians. I also determine that the exhibition or display of the exhibit objects at the Museum of Fine Arts, Houston, Houston, Texas, from on or about October 6, 2013, until on or about January 19, 2014, and at possible additional exhibitions or venues yet to be determined, is in the national interest. I have ordered that Public Notice of these Determinations be published in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: For further information, including a list of the exhibit objects, contact Paul W. Manning, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: 202–632–6469). The mailing address is U.S. Department of State, SA–5, L/PD, Fifth Floor (Suite 5H03), Washington, DC 20522–0505.

Dated: September 4, 2013.

Lee Satterfield,

Deputy Assistant Secretary for Professional and Cultural Exchanges, Bureau of Educational and Cultural Affairs, Department of State.

[FR Doc. 2013–22091 Filed 9–10–13; 8:45 am]

BILLING CODE 4710–05–P

DEPARTMENT OF STATE

[Public Notice 8463]

Culturally Significant Object Imported for Exhibition Determinations: ''Beauty Revealed: Images of Women in Qing Dynasty Chinese Painting''

SUMMARY: Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.;* 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236–3 of August 28, 2000, and, as appropriate, Delegation of Authority No. 257 of April 15, 2003, I hereby determine that the object to be included in the exhibition ''Beauty Revealed: Images of Women in Qing Dynasty Chinese Painting,'' imported from abroad for temporary exhibition within the United States, is of cultural significance. The object is imported pursuant to a loan agreement with the foreign owner or custodian. I also determine that the exhibition or display of the exhibit object at the Berkeley Art Museum & Pacific Film Archive, Berkeley, California, from on or about September 25, 2013, until on or about December 22, 2013, and at possible additional exhibitions or venues yet to be determined, is in the national interest. I have ordered that Public Notice of these Determinations be published in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: For further information, including a description of the exhibit object, contact Paul W. Manning, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: 202–632–6469). The mailing address is U.S. Department of State, SA–5, L/PD, Fifth Floor (Suite 5H03), Washington, DC 20522–0505.

Dated: September 3, 2013.

Lee Satterfield,

Deputy Assistant Secretary for Professional and Cultural Exchanges, Bureau of Educational and Cultural Affairs, Department of State.

[FR Doc. 2013–22090 Filed 9–10–13; 8:45 am]

BILLING CODE 4710–05–P

DEPARTMENT OF STATE

[Public Notice 8461]

U.S. Department of State Advisory Committee on Private International Law: Notice of Annual Meeting

The Department of State's Advisory Committee on Private International Law (ACPIL) will hold its annual meeting on Monday, October 21 and Tuesday, October 22, 2013 in Washington, DC. The meeting will be held at the Michael K. Young Faculty Conference Center, George Washington University Law School, 2000 H Street NW., Washington DC 20052. The program is scheduled to run from 9:00 a.m. to 5:00 p.m. on Monday and from 9:00 a.m. to 2:00 p.m. on Tuesday.

Time permitting, we expect that the discussion will focus on a number of areas, e.g., international family law; micro, small and medium enterprises; the Cape Town Convention; judgments; and insolvency. We encourage active participation by all those attending.

Documents on these subjects are available at *www.hcch.net; www.uncitral.org;* and *www.unidroit.org.* We may, by email, provide participants particular documents.

Please advise as early as possible if you plan to attend. The meeting is open to the public up to the capacity of the conference facility, and space will be reserved on a first come, first served basis. Persons who wish to have their views considered are encouraged, but not required, to submit written comments in advance. Those who are unable to attend are also encouraged to submit written views. Comments should be sent electronically to *pil@state.gov.* Those planning to attend should provide name, affiliation and contact information to *pil@state.gov.* You may also use that email to obtain additional information. A member of the public needing reasonable accommodation should notify us at *pil@state.gov* not later than September 30th. Requests made after that date will be considered, but might not be able to be fulfilled.

Dated: August 30, 2013.

Michael S. Coffee,

Acting Assistant Legal Adviser, Office of Private International Law, Office of the Legal Adviser, Department of State.

[FR Doc. 2013–22088 Filed 9–10–13; 8:45 am]

BILLING CODE 4710–08–P

DEPARTMENT OF STATE

[Public Notice 8462]

Advisory Committee on International Postal and Delivery Services

AGENCY: Department of State.

ACTION: Notice; FACA Committee meeting announcement.

Summary: As required by the Federal Advisory Committee Act, Public Law 92–463, the Department of State gives notice of a meeting of the Advisory Committee on International Postal and Delivery Services. This Committee has been formed in fulfillment of the provisions of the 2006 Postal Accountability and Enhancement Act (Pub. L. 109–435) and in accordance with the Federal Advisory Committee Act.

Date and Time: The meeting will be held on Monday, September 30, from 10:00 a.m. to 12:00 p.m.

Location: The American Institute of Architects, Board Room, 1735 New York Avenue NW., Washington, DC 20006.

Public input: Any member of the public interested in providing public input to the meeting should contact Ms. Helen Grove, whose contact information is listed under **FOR FURTHER INFORMATION** section of this notice. Each individual providing oral input is requested to limit his or her comments to five minutes. Requests to be added to the speaker list must be received in writing (letter, email or fax) prior to the close of business on Monday, September 23, 2013; written comments from members of the public for distribution at this meeting must reach Ms. Grove by letter, email or fax by this same date. A member of the public requesting reasonable accommodation should make the request to Ms. Grove by that same date.

Meeting Agenda: The agenda of the meeting will include: A review of the major proposals and issues to be considered by the October/November Council of Administration and Postal Operations Council meetings in Bern, Switzerland; membership applications and renewals; and other subjects related to international postal and delivery services of interest to Advisory Committee members and the public.

FOR FURTHER INFORMATION CONTACT: Please contact Ms. Helen Grove of the Office of Global Systems (IO/GS), Bureau of International Organization Affairs, U.S. Department of State, at (202) 647–1044 or by email at *GroveHA@state.gov.mailto:*

Dated: September 5, 2013.

Robert Downes,

Designated Federal Officer, Department of State.

[FR Doc. 2013–22089 Filed 9–10–13; 8:45 am]

BILLING CODE 4710–19–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Fourteenth Meeting: RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size

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

ACTION: Meeting Notice of RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size.

SUMMARY: The FAA is issuing this notice to advise the public of the fourteenth meeting of the RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size

DATES: The meeting will be held October 1–3, 2013, from 9:00 a.m.–5:00 p.m.

ADDRESSES: On Oct 1st, the meeting will be held at the Boeing Facility, 95–82 Building, 1200 Wilson Boulevard, Arlington, VA 22209 and on Oct 2–3rd, the meeting will be held at RTCA Headquarters, 1150 18th Street NW., Suite 910, Washington, DC 20036.

FOR FURTHER INFORMATION CONTACT: The RTCA Secretariat, 1150 18th Street NW., Suite 910, Washington, DC 20036, or by telephone at (202) 330–0662/(202) 833–9339, fax (202) 833–9434, or Web site at *http://www.rtca.org.* In addition, Jennifer Iversen may be contacted directly at email: *jiversen@rtca.org.*

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. No. 92–463, 5 U.S.C., App.), notice is hereby given for a meeting of Special Committee 225. The agenda will include the following:

Tuesday, October 1, 2013

- Introductions and administrative items.
- Review agenda.
- Review and approval of summary from last Plenary meeting.
- Li-ion Current Events.
- Status of DO–3xx.
- Review latest TOR.
- Create plan for updating DO–311A, including working group meetings and additional attendees.
- Adjourn to Working Group to review/revise DO–311A.
- Review action items.

Wednesday, October 2, 2013

- Review agenda, other actions.
- Adjourn to Working Group to review/revise DO–311A.
- Review action items.

Thursday, October 3, 2013

- Review agenda, other actions.
- Review schedule for upcoming Plenaries (as needed), working group meetings, and document preparation.
- Establish agenda for the next Plenary.
- Adjourn to Working Group to review/revise DO–311A.
- Adjourn.

Attendance is open to the interested public but limited to space availability. With the approval of the chairman, members of the public may present oral statements at the meeting. Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on September 5, 2013.

Paige Williams,

Management Analyst, NextGen, Business Operations Group, Federal Aviation Administration.

[FR Doc. 2013–22103 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Twenty Fourth Meeting: RTCA Special Committee 213, Enhanced Flight Vision Systems/Synthetic Vision Systems (EFVS/SVS)

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

ACTION: Meeting notice of RTCA Special Committee 213, Enhanced Flight Vision Systems/Synthetic Vision Systems (EFVS/SVS).

SUMMARY: The FAA is issuing this notice to advise the public of the twenty fourth meeting of the RTCA Special Committee 213, Enhanced Flight Vision Systems/ Synthetic Vision Systems (EFVS/SVS).

DATES: The meeting will be held October 8–9, 2013 from 9:00 a.m.–5:00 p.m. and October 10, 2013 from 9:00 a.m.–3:00 p.m.

ADDRESSES: The meeting will be held at SAIC, 1515 Wilson Blvd., Arlington, Virginia 22209.

FOR FURTHER INFORMATION CONTACT: The RTCA Secretariat, 1150 18th Street NW., Suite 910, Washington, DC 20036, or by telephone at (202) 330–0652/(202) 833–9339, fax at (202) 833–9434, or Web site at *http://www.rtca.org.* Additional contact information: please contact *Patrick Krohn, pkrohn@uasc.com,* telephone (425) 602–1375 or mobile at (425) 829–1996. RTCA contact is *Jennifer Iverson, jiverson@rtca.org,* (202) 330- 0662.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a) (2) of the Federal Advisory Committee Act (Pub. L. 92–463, 5 U.S.C., App.), notice is hereby given for a meeting of Special Committee 213. The agenda will include the following:

Tuesday, October 8, 2013

Plenary Discussion (sign in at 9:00 a.m.)

- Introductions and administrative items
- Review and approve minutes from last full plenary meeting
- Review of terms of reference
- Status of DO–342A and DO–315C Drafts
- Industry updates
- DO–315C and DO–342A draft review

Wednesday, October 9, 2013

Plenary Discussion

- WG–1 DO–315C draft review
- WG–2 DO–342A draft review

Thursday, October 10, 2013

Plenary Discussion

- WG–1 DO–315C draft review
- WG–1 DO–342A draft review
- Administrative items
- Adjourn

Attendance is open to the interested public but limited to space availability. With the approval of the chairman, members of the public may present oral statements at the meeting.

Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on September 5, 2013.

Paige Williams,

Management Analyst, NextGen, Business Operations Group, Federal Aviation Administration.

[FR Doc. 2013–22102 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Maritime Administration

[Docket No. Marad 2013 0100]

Information Collection Available for Public Comments and Recommendations

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Maritime Administration's (MARAD's) intention to request extension of approval for three years of a currently approved information collection.

DATES: Comments should be submitted on or before November 12, 2013.

FOR FURTHER INFORMATION CONTACT: Lauren Brand, Maritime Administration, 1200 New Jersey Avenue SE., Washington, DC 20590. Telephone: 202–366–7057; or email *lauren.brand@dot.gov.* Copies of this collection also can be obtained from that office.

SUPPLEMENTARY INFORMATION:

Maritime Administration (MARAD)

Title of Collection: America's Marine Highway Program.

Type of Request: Extension of currently approved information collection.

OMB Control Number: 2133–0541.

Form Numbers: None.

Expiration Date of Approval: Three years from date of approval by the Office of Management and Budget.

Summary of Collection of Information: The Department of Transportation will solicit applications for Marine Highway Projects as specified in the America's Marine Highway Program Final Rule, MARAD–2010–0035, published in the **Federal Register** on April 9, 2010. These applications must comply with the requirements of the referenced America's Marine Highway Program Final Rule, and be submitted in accordance with the instructions contained in that Final Rule. This application period begins immediately upon publication of the Solicitation of Applications for Marine Highway Projects. The solicitation will occur during FY 2014.

Need and Use of the Information: The information will be used by the Maritime Administration to evaluate and review applications being submitted for project designation. The review will assess factors such as project scope, impact, public benefit, environmental effect, offsetting costs, cost to the government (if any), the likelihood of long-term self-supporting operations, and its relationship with Marine Highway Routes once designated.

Description of Respondents: State, Local, or Tribal Government and Business or other for-profit.

Annual Responses: 20 responses.

Annual Burden: 200 hours.

Comments: Comments should refer to the docket number that appears at the top of this document. Written comments may be submitted to the Docket Clerk, U.S. DOT Dockets, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590. Comments also may be submitted by electronic means via the Internet at *http://www.regulations.gov.* Specifically address whether this information collection is necessary for proper performance of the functions of the agency and will have practical utility, accuracy of the burden estimates, ways to minimize this burden, and ways to enhance the quality, utility, and clarity of the information to be collected. All comments received will be available for examination at the above address between 10 a.m. and 5 p.m. *EDT (or EST*), Monday through Friday, except Federal Holidays. An electronic version of this document is available on the World Wide Web at *http://www.regulations.gov.*

Privacy Act: Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association,

business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://www.regulations.gov*.

Authority: 49 CFR § 1.93.

By Order of the Maritime Administrator.

Dated: September 4, 2013.

Christine Gurland,

Acting Secretary, Maritime Administration.

[FR Doc. 2013–22039 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–81–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No PHMSA–2013–0061]

Pipeline Safety: Information Collection Activities

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Notice and request for comments.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request abstracted below is being forwarded to the Office of Management and Budget (OMB) for review and comments. A **Federal Register** notice with a 60-day comment period soliciting comments on the following information collection was published on April 23, 2013, (78 FR 23972).

PHMSA received one comment in response to that notice. PHMSA is publishing this notice to respond to the comment, provide the public with an additional 30 days to comment on the proposed revisions to the forms and the instructions, and announce that the revised information collection will be submitted to OMB for approval.

DATES: Comments must be submitted on or before October 11, 2013.

FOR FURTHER INFORMATION CONTACT: Blaine Keener by telephone at 202–366–0970, by fax at 202–366–4566, or by email at *blaine.keener@dot.gov.*

ADDRESSES: You may submit comments identified by the docket number PHMSA–2013–0061 by any of the following methods:

- *Fax:* 1–202–395–5806.
- *Mail:* Office of Information and Regulatory Affairs (OIRA), Records Management Center, Room 10102 NEOB, 725 17th Street NW., Washington, DC 20503, ATTN: Desk Officer for the U.S. Department of Transportation/PHMSA.
- *Email:* OIRA, OMB, at the following email address: *OIRA_Submission@omb.eop.gov.*

Requests for a copy of the Information Collection should be directed to Angela Dow by telephone at 202–366–1246, by fax at 202–366–4566, by email at *Angela.Dow@dot.gov,* or by mail at U.S. Department of Transportation, PHMSA, 1200 New Jersey Avenue SE., PHP–30, Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Section 1320.8(d), Title 5, Code of Federal Regulations, requires PHMSA to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. This notice identifies a revised information collection request that PHMSA will be submitting to OMB for approval. The information collected from hazardous liquid operators is an important tool for identifying safety trends in the hazardous liquid pipeline industry.

In a **Federal Register** Notice on April 23, 2013, with a 60-day comment period, PHMSA published its proposed changes to the hazardous liquid operators' accident report and its proposal to include the incorporation by reference of American Petroleum Institute (API) API 1130 (the industry standard on leak detection) which provides information collection and maintenance guidance on many factors such as measurement capabilities, communications reliability, pipeline operating condition, and product type. During this response period, PHMSA received one joint comment from API and the Association of Oil Pipelines (AOPL).

This 30-day notice responds to the comments, which may be found at *http://www.regulations.gov,* at docket number PHMSA–2013–0061.

The following is a summary of the joint comments to PHMSA regarding the proposed changes to Form PHMSA F 7000–1 ACCIDENT REPORT—HAZARDOUS LIQUID PIPELINE SYSTEMS.

A. Instructions for Volume Spilled (Part A9) and Volume Recovered (Part A11)

Comment: API/AOPL opposes PHMSA's proposal to include all product exiting the pipeline system in both the Volume Spilled and Volume Recovered categories. API/AOPL requests that volume exiting a system during a controlled event not be reported.

PHMSA Response: PHMSA does not consider any product exiting the system at the failure location to be done in a controlled manner. We are proposing to revise the instructions to exempt product removed from the system at locations remote from the failure site from both the Volume Spilled and Volume Recovered categories. However, we continue to propose that all product exiting the system at the failure site, regardless of the degree of control attainable by the operator, be reported in both Volume Spilled and Volume Recovered. Limiting the Volume Spilled to product exiting the system at the failure site provides the most accurate characterization of the consequences of the accident. The difference between Volume Spilled and Volume Recovered provides the most accurate characterization of the environmental consequences of the accident. This change does not penalize operators for withdrawing product in a controlled manner at locations remote from the failure site and provides incentive to move product away from the failure site whenever possible.

Comment: API/AOPL recommends ''facility'' be replaced with ''system'' in the instructions for Volume Spilled and Volume Recovered.

PHMSA Response: PHMSA has implemented this recommendation.

B. Instructions for Time Sequence (Part A18)

Comment: API/AOPL opposes the proposed change to the instructions regarding the use of the phrase ''when the operator became aware of the accident'' to describe the earliest date and time an operator identifies a pipeline failure. API/AOPL states that ''awareness of the accident'' is open to wide interpretation and suggests that ''awareness'' be replaced with ''discovery'', which is used in other PHMSA regulations. API/AOPL notes that PHMSA's regulations for safety-related conditions characterize ''discovery'' as ''when an operator's representative has adequate information from which to conclude the probable existence.''

PHMSA Response: We do not agree that the proposal to use ''adequate'' and ''probable'' in the definition of ''discovery'' provides additional clarity. Part A18 of the form simply requires the operator to report the earliest date/time the operator identified the failure and the date/time the operator arrived on site. If PHMSA were to implement API/AOPL's recommendation, these date/times would be identical and PHMSA would gain no knowledge of operator response time.

C. Instructions for National Response Center Report Number

Comment: API/AOPL requests that PHMSA delay the proposal to collect multiple National Response Center (NRC) report numbers until the NRC implements requirements from the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (''Act'').

PHMSA Response: PHMSA does not agree that it is necessary to wait for actions the NRC may take in response to the ''Act.''

Comment: API/AOPL suggests a new option is needed when a NRC Report was not submitted and proposes that ''NRC notification not required at time of release'' be added as an option.

PHMSA Response: PHMSA has already proposed ''NRC Notification Not Required'' as an option.

D. Revise instructions for Accident Preparer and Authorizer

Comment: API/AOPL recommends changes to both the instructions and form to make clear that the information will be available to the public.

PHMSA Response: All data submitted by operators to PHMSA could potentially be made publicly available. We have not adopted this recommendation.

The following information is provided for each information collection: (1) Abstract for the affected accident report form; (2) title of the information collection; (3) OMB control number; (4) affected accident report form; (5) description of affected public; (6) estimate of total accident reporting and recordkeeping burden; and (7) frequency of collection. PHMSA will request a three-year term of approval for each information collection activity and, when approved by OMB, publish notice of the approval in the **Federal Register**.

PHMSA requests comments on the following information collection:

Title: Transportation of Hazardous Liquids by Pipeline: Recordkeeping and Accident Reporting.

OMB Control Number: 2137–0047.

Current Expiration Date: 1/31/2014.

Type of Request: Revision.

Abstract: This information collection covers recordkeeping and accident reporting by hazardous liquid pipeline operators who are subject to 49 CFR Part 195 as well as the incorporation by reference of the industry standard on leak detection. PHMSA is proposing to revise the Hazardous Liquid Accident Report to collect more data on small spills and to revise the instructions for completing the form. Section 195.50 specifies the definition of an ''accident'' and the reporting criteria for submitting a Hazardous Liquid Accident Report (Form PHMSA F7000–1) is detailed in § 195.54.

Section 195.444 requires operators of single-phase hazardous liquid pipeline facilities that use Computational Pipeline Monitoring (CPM) leak detection systems to comply with the standards set out in American Petroleum Institute (API) publication API 1130. API 1130 provides information collection and maintenance guidance on many factors such as measurement capabilities, communications reliability, pipeline operating condition, and product type. Compliance with API 1130, including its recordkeeping requirements, supports pipeline safety by ensuring the proper functioning of CPM leak detection systems.

Affected Public: Hazardous liquid pipeline operators.

Accident Reporting and Recordkeeping Burden:

Annual Responses: 897.

Annual Burden Hours: 52,429.

Frequency of collection: On Occasion.

Comments are invited on:

(a) The need for the proposed collection of information for the proper performance of the functions of the agency, including whether the information will have practical utility;

(b) 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;

(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 those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques.

Issued in Washington, DC, on September 5, 2013.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

[FR Doc. 2013–22049 Filed 9–10–13; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[Docket No. FD 35760]

Hainesport Industrial Railroad, LLC—Corporate Family Transaction Exemption

Hainesport Industrial Railroad, LLC (Hainesport), a Class III railroad, filed a verified notice of exemption under 49 CFR 1180.2(d)(3) for a corporate family transaction pursuant to which Hainesport will transfer ownership and operation of a line of railroad in Hainesport, N.J., to a corporate affiliate.

According to Hainesport, it currently owns and operates a series of tracks serving several customers located in the Hainesport Industrial Park in Hainesport, N.J., where it connects with a line owned and served by Consolidated Rail Corporation (Conrail).[1] Hainesport states that several sidings point in an easterly direction (East Line) and one or more sidings point in a southerly direction (South Line). Hainesport proposes to establish a new corporate affiliate, Hainesport Secondary Railroad, LLC (Hainesport Secondary), to own and operate the East Line. Hainesport will continue to own and operate the South Line. Hainesport states that it will enter into a haulage agreement with Hainesport Secondary that provides for Hainesport Secondary to move traffic between the South Line and the Conrail interchange on behalf of Hainesport.

Unless stayed, the exemption will be effective on September 25, 2013 (30 days after the verified notice was filed). Applicant states that the parties intend to consummate the proposed transaction on or about September 26, 2013.

According to Hainesport, the purpose of this transaction is to allow Hainesport to separate the lines of railroad according to the types of traffic each handles. In addition, Hainesport states that the transaction will facilitate the sale of the South Line should Hainesport's owners choose to sell that line in the future.

The line transfer is a transaction within a corporate family exempted from prior review and approval under 49 CFR 1180.2(d)(3). Applicant states that the transaction will not result in adverse changes in service levels, significant operational changes, or changes in the competitive balance with carriers outside the corporate family.

Under 49 U.S.C. 10502(g), the Board may not use its exemption authority to relieve a rail carrier of its statutory obligation to protect the interests of its employees. Section 11326(c), however, does not provide for labor protection for transactions under 11324 and 11325 that involve only Class III rail carriers. Accordingly, the Board may not impose labor protective conditions here, because all of the carriers involved are Class III rail carriers.

[1] *See Hainesport Indus. R.R.—Acquis. & Operation Exemption—Hainesport Indus. Park R.R.,* FD 34695 (STB served May 18, 2005).

If the notice contains false or misleading information, the exemption is void *ab initio.* Petitions to revoke the exemption under 49 U.S.C. 10502(d) may be filed at any time. The filing of a petition to revoke will not automatically stay the effectiveness of the exemption. Petitions for stay must be filed no later than September 18, 2013 (at least seven days before the exemption becomes effective).

An original and 10 copies of all pleadings, referring to Docket No. FD 35760, must be filed with the Surface Transportation Board, 395 E Street SW., Washington, DC 20423–0001. In addition, one copy of each pleading must be served on applicant's representative, John D. Heffner, Strasburger & Price, LLP, 1700 K Street NW., Suite 640, Washington, DC 20006.

Board decisions and notices are available on our Web site at *''WWW.STB.DOT.GOV.''*

Decided: September 6, 2013.

By the Board, Rachel D. Campbell, Director, Office of Proceedings.

Derrick A. Gardner,

Clearance Clerk.

[FR Doc. 2013–22099 Filed 9–10–13; 8:45 am]

BILLING CODE 4915–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0759]

Proposed Information Collection (VA, National Veterans Sports Programs and Special Events, Event Registration Applications); Comment Request

AGENCY: Office of National Veterans Sports Programs and Special Events, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: The Office of National Veterans Sports Programs and Special Events (NVSP), Department of Veterans Affairs (VA), is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act (PRA) of 1995, Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each revised proposed collection, and allow 60 days for public comment in response to the notice. This notice solicits comments for information needed to participant in VA national rehabilitation special events.

DATES: Written comments and recommendations on the proposed collection of information should be received on or before November 12, 2013.

ADDRESSES: Submit written comments on the collection of information through the Federal Docket Management System (FDMS) at *www.Regulations.gov;* or to Matt Bristol, Office of National Veterans Sports Programs and Special Events (002C), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420 or email: *matt.bristol@va.gov.* Please refer to ''OMB Control No. 2900–0759'' in any correspondence. During the comment period, comments may be viewed online through FDMS.

FOR FURTHER INFORMATION CONTACT: Matt Bristol at (202) 632–7129 or fax (202) 273–5716.

SUPPLEMENTARY INFORMATION: Under the PRA of 1995 (Pub. L. 104–13; 44 U.S.C. 3501–21), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. This request for comment is being made pursuant to Section 3506(c)(2)(A) of the PRA.

With respect to the following collection of information, NVSP invites comments on: (1) Whether the proposed collection of information is necessary for the proper performance of NVSP's functions, including whether the information will have practical utility; (2) the accuracy of NVSP's estimate of the burden of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or the use of other forms of information technology.

Titles:

a. National Disabled Veterans Winter Sports Clinic Application, VA Form 0924a, c, d and VA Form 2900–0925 (SF).

b. Cross Country Ski Instructor Personnel Application, VA Form 0924n.

c. Downhill Skill Instructor Personnel Application, VA Form 0924s.

d. Volunteer Application, VA Form 0924t.

e. National Veterans Wheelchair Games Event Application, VA Form 0925b.

f. Voluntary Service Application, VA Form 0925d.

g. National Veteran Golden Age Games Application, VA Form 0926a, b d, e, g, h.

h. Voluntary Application, VA Form 0926j.

i. National Veterans TEE Tournament Event Application, VA Form 0927a, c, e.

j. Voluntary Service Application, VA Form 0927f.

k. National Veterans Summer sports Clinic Event Application, VA Form 0928a, c.

l. Volunteer Application, VA Form 0928h.

m. Surfing Personnel Application, VA Form 0928i.

n. Venue Personnel Application, VA Form 0928j.

o. National Veteran Creative Arts Festival Event Application, VA0929a, b, c, d, e, f, g, h.

OMB Control Number: 2900–0759.

Type of Review: Revision of an already approved collection.

Abstract: Veterans who are enrolled for VA health care may apply to participate in therapeutic rehabilitation programs such as the National Veterans Wheelchair Games, National Veterans Golden Age Games, National Veterans Creative Arts Festival, National Veterans TEE Tournament, National Disabled Veterans Winter Sports Clinic and the National Veterans Summer Sports Clinic. The data collected will be used to plan, distribute and utilize resources and to allocate clinical and administrative support to patient treatment services.

Affected Public: Individuals or households.

Estimated Annual Burden:

a. VA Form 0924a, c, d and VA Form 2900–0925 (SF)—133.3 hours.

b. VA Form 0924n—2.8 hours.

c. VA Form 0924s—16.67.

d. VA Form 0924t—1.25 hours.

e. VA Form 0925b—119 hours.

f. VA Form 0925d—167 hours.

g. VA Form 0926a, b, d, e, g, h—333 hours.

h. VA Form 0926j—67 hours.

i. VA Form 0927a, c, e—65 hours.

j. VA Form 0927f—8 hours.

k. VA Form 0928a, c—14 hours.

l. VA Form 0928h—2.58 hours.

m. VA Form 0928i—.50 hours.

n. VA Form 0928j—1.33 hours.

o. VA0929a, b, c, d, e, f, g, h—116.6 hours.

Estimated Average Burden per Respondent:

a. VA Form 0924a, c, d, and VA Form 2900–0925 (SF)—20 minutes.

b. VA Form 0924n—5 minutes.

c. VA Form 0924s—5 minutes.

d. VA Form 0924t—5 minutes.

e. VA Form 0925b—10 minutes.

f. VA Form 0925d—5 minutes.

g. VA Form 0926a, b, d, e, g, h—20 minutes.

h. VA Form 0926j—5 minutes.

i. VA Form 0927a, c, e—13 minutes.

j. VA Form 0927f—5 minutes.

k. VA Form 0928a, c—7 minutes.

l. VA Form 0928h—5 minutes.

m. VA Form 0928i—5 minutes.
n. VA Form 0928j—5 minutes.
o. VA0929a, b, c, d, e, f, g, h—35 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents:

a. VA Form 0924a, c, d, and VA Form 2900–0925 (SF)—400.
b. VA Form 0924n—25.
c. VA Form 0924s—200.
d. VA Form 0924t—15.
e. VA Form 0925b—715.
f. VA Form 0925d—2,000.
g. VA Form 0926a, b, d, e, g, h—1,000.
h. VA Form 0926j—800.
i. VA Form 0927a, c, e—300.
j. VA Form 0927f—100.
k. VA Form 0928a, c—120.
l. VA Form 0928h—31.
m. VA Form 0928i—6.
n. VA Form 0928j—16.
o. VA0929a, b, c, d, e, f, g, h—200.

Dated: September 6, 2013.

By direction of the Secretary.

Crystal Rennie,

VA Clearance Officer, U.S. Department of Veterans Affairs.

[FR Doc. 2013–22077 Filed 9–10–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0709]

Proposed Information Collection (Regulation on Reduction of Nursing Shortages in State Homes; Application for Assistance for Hiring and Retaining Nurses at State Homes) Activity: Comment Request

AGENCY: Veterans Health Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: The Veterans Health Administration (VHA), Department of Veterans Affairs (VA), is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act (PRA) of 1995, Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of a currently approved collection, and allow 60 days for public comment in response to the notice. This notice solicits comments for information needed to determine State Veterans' Homes eligibility for funding for programs to recruit and retain nurses at their facility.

DATES: Written comments and recommendations on the proposed collection of information should be received before November 12, 2013.

ADDRESSES: Submit written comments on the collection of information through Federal Docket Management System (FDMS) at *www.Regulations.gov;* or to Cynthia Harvey-Pryor, Veterans Health Administration (10B4), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420; or email: *cynthia.harvey-pryor@va.gov.* Please refer to ''OMB Control No. 2900–0709'' in any correspondence. During the comment period, comments may be viewed online through the FDMS.

FOR FURTHER INFORMATION CONTACT: Cynthia Harvey-Pryor at (202) 461–5870 or fax (202) 495–5397.

SUPPLEMENTARY INFORMATION: Under the PRA of 1995 (Pub. L. 104–13; 44 U.S.C. 3501–3521), Federal agencies must obtain approval from OMB for each collection of information they conduct or sponsor. This request for comment is being made pursuant to Section 3506(c)(2)(A) of the PRA.

With respect to the following collection of information, VHA invites comments on: (1) Whether the proposed collection of information is necessary for the proper performance of VHA's functions, including whether the information will have practical utility; (2) the accuracy of VHA's estimate of the burden of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or the use of other forms of information technology.

Title: Regulation on Reduction of Nursing Shortages in State Homes; Application for Assistance for Hiring and Retaining Nurses at State Homes, VA Form 10–0430.

OMB Control Number: 2900–0709.

Type of Review: Revision of a currently approved collection.

Abstract: State Veterans' Homes complete VA Form 10–0430 to request funding to assist in the hiring and retention of nurses at their facility. VA will use the data collected to determine State homes eligibility and the appropriate amount of funding.

Affected Public: State, Local or Tribal Government.

Estimated Annual Burden: 30.

Estimated Average Burden per Respondent: 2 hours.

Frequency of Response: One time.

Estimated Number of Respondents: 15 per year.

Dated: September 6, 2013.

By direction of the Secretary.

Crystal Rennie,

VA Clearance Officer, U.S. Department of Veterans Affairs.

[FR Doc. 2013–22079 Filed 9–10–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

Geriatrics and Gerontology Advisory Committee, Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act, 5 U.S.C. App. 2, that a meeting of the Geriatrics and Gerontology Advisory Committee will be held on September 26–27, 2013, in Room 530 at the Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC. On September 26, the session will begin at 8:30 a.m. and end at 5 p.m. On September 27, the session will begin at 8 a.m. and end at 12 noon. This meeting is open to the public.

The purpose of the Committee is to provide advice to the Secretary of Veterans Affairs and the Under Secretary for Health on all matters pertaining to geriatrics and gerontology. The Committee assesses the capability of VA health care facilities and programs to meet the medical, psychological, and social needs of older Veterans and evaluates VA programs designated as Geriatric Research, Education, and Clinical Centers.

The meeting will feature presentations and discussions on VA's geriatrics and extended care programs; aging research activities; training, recruitment and retention approaches; Veterans Health Administration (VHA) strategic planning activities in geriatrics and extended care; recent VHA efforts regarding dementia and program advances in palliative care; and performance and oversight of VA Geriatric Research, Education, and Clinical Centers.

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 Mrs. Marcia Holt-Delaney, Program Analyst, Geriatrics and Extended Care Services (10P4G), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, or via email at *Marcia.Holt-Delaney@va.gov*. Because the meeting is being held in a government building, a photo I.D. must be presented at the Guard's Desk as a part of the clearance process. Therefore, you should allow an additional 15 minutes before the meeting begins.

Individuals who wish to attend the meeting or seeking additional information should contact Mrs. Holt-Delaney at (202) 461–6769.

Dated: September 5, 2013.

By Direction of the Secretary.

Vivian Drake,

Committee Management Officer.

[FR Doc. 2013–22066 Filed 9–10–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

Veterans' Advisory Committee on Rehabilitation, Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act, 5 U.S.C. App. 2, that the Veterans' Advisory Committee on Rehabilitation will meet on October 15–16, 2013, in Room 530 at the Department of Veterans Affairs, 810 Vermont Avenue, Washington, DC. The meeting will begin at 8 a.m. each day and adjourn at 5 p.m. on October 15 and at noon on October 16. The meeting will be open to the public.

The purpose of the Committee is to advise the Secretary of Veterans Affairs on the rehabilitation needs of Veterans with disabilities and provide a review of VA programs and activities that are designed to meet these needs.

The Committee will receive update briefings on various VA programs designed to enhance the rehabilitative potential of recently-discharged Veterans. Members will also begin consideration of potential recommendations to be included in the Committee's next annual report.

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 Teri Nguyen, Designated Federal Officer, VA, Veterans Benefits Administration (28), 810 Vermont Avenue NW., Washington, DC 20420, or via email at T*eri.Nguyen1@va.gov.* In the communication with the Committee, writers must identify themselves and state the organization, association or person(s) they represent. Because the meeting is being held in a government building, a photo I.D. must be presented at the Guard's Desk as a part of the clearance process. Therefore, you should allow an additional 15 minutes before the meeting begins. Individuals who wish to attend the meeting or seeking additional information should contact Teri Nguyen at (202) 461–9600.

By Direction of the Secretary:

Dated: September 6, 2013.

Vivian Drake,

Committee Management Officer.

[FR Doc. 2013–22098 Filed 9–10–13; 8:45 am]

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Part II

Department of Energy

10 CFR Part 431

Energy Conservation Program: Energy Conservation Standards for Walk-In Coolers and Freezers; Proposed Rule

DEPARTMENT OF ENERGY

10 CFR Part 431

[Docket No. EERE–2008–BT–STD–0015]

RIN 1904–AB86

Energy Conservation Program: Energy Conservation Standards for Walk-In Coolers and Freezers

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

ACTION: Notice of proposed rulemaking (NOPR) and public meeting.

SUMMARY: The Energy Policy and Conservation Act of 1975 (EPCA), as amended, prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment, including walk-in coolers and walk-in freezers. EPCA also requires the U.S. Department of Energy (DOE) to determine whether more-stringent, amended standards would be technologically feasible and economically justified, and would save a significant amount of energy. In this notice, DOE proposes amended energy conservation standards for walk-in coolers and walk-in freezers. The notice also announces a public meeting to receive comment on these proposed standards and associated analyses and results.

DATES: DOE will hold a public meeting on Wednesday, October 9, 2013, from 9 a.m. to 4 p.m., in Washington, DC. The meeting will also be broadcast as a webinar. See section VII, ''Public Participation,'' for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

DOE will accept comments, data, and information regarding this notice of proposed rulemaking (NOPR) before and after the public meeting, but no later than November 12, 2013. See section VII, ''Public Participation,'' for details.

ADDRESSES: The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room 8E–089, 1000 Independence Avenue SW., Washington, DC 20585. To attend, please notify Ms. Brenda Edwards at (202) 586–2945. For more information, refer to section VII, Public Participation.

Any comments submitted must identify the NOPR for Energy Conservation Standards for walk-in coolers and freezers, and provide docket number EERE–2008–BT–STD–0015 and/or regulatory information number (RIN) number 1904–AB86. Comments may be submitted using any of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov*. Follow the instructions for submitting comments.

2. *Email: WICF–2008–STD–0015@ee.doe.gov*. Include the docket number and/or RIN in the subject line of the message.

3. *Mail:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Office, Mailstop EE–2J, 1000 Independence Avenue SW., Washington, DC, 20585–0121. If possible, please submit all items on a CD. It is not necessary to include printed copies.

4. *Hand Delivery/Courier:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Office, 950 L'Enfant Plaza SW., Suite 600, Washington, DC 20024. Telephone: (202) 586–2945. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this proposed rule may be submitted to Office of Energy Efficiency and Renewable Energy through the methods listed above and by email to *Chad_S_Whiteman@omb.eop.gov*.

For detailed instructions on submitting comments and additional information on the rulemaking process, see section VII of this document (Public Participation).

Docket: The docket, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at regulations.gov. All documents in the docket are listed in the 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.

A link to the docket Web page can be found at: *http://www1.eere.energy.gov/buildings/appliance_standards/rulemaking.aspx/ruleid/30*. This Web page contains a link to the docket for this notice on the regulations.gov site. The regulations.gov Web page contains instructions on how to access all documents, including public comments, in the docket. See section VII for further information on how to submit comments through *www.regulations.gov*.

For further information on how to submit a comment, review other public comments and the docket, or participate in the public meeting, contact Ms. Brenda Edwards at (202) 586–2945 or by email: *Brenda.Edwards@ee.doe.gov*.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Llenza, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, EE–2J, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 586–2192. Email: *walk-in_coolers_and_walk-in_freezers@EE.Doe.Gov*.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, GC–71, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 586–8145. Email: *Michael.Kido@hq.doe.gov*.

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I. Summary of the Proposed Rule

DOE proposes creating new performance-based energy conservation standards for walk-in coolers and walk-in freezers (collectively, ''walk-ins'' or ''WICFs''). The proposed standards, which are expressed as an annual walk-in energy factor (AWEF) for refrigeration systems, the maximum allowable U-factor expressed as a function of the ratio of edge area to core area for panels, and the maximum allowable daily energy use expressed as a function of the surface area for non-display and display doors, are shown in Table I.1. These proposed standards, if adopted, would apply to all products listed in Table I.1 and manufactured in, or imported into, the United States on or after 3 years after the publication date of any final rule establishing energy conservation standards for walk-ins. Appendix 10D of the TSD lists the technologies that DOE assumes manufacturers will use to meet the proposed standards.

Table I-1 Proposed Energy Conservation Standards for Walk-in Coolers and Walk-in Freezers (Assumes Compliance Starting 3 Years After the Publication Date of any Final Rule)

Class Descriptor	Class	Proposed Standard Level
Refrigeration Systems		**Minimum AWEF (Btu/W-h)***
Dedicated Condensing, Medium Temperature, Indoor System, < 9,000 Btu/h Capacity	DC.M.I, < 9,000	$2.63\times10^{-4}\times Q+4.53$
Dedicated Condensing, Medium Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	DC.M.I, ≥ 9,000	6.90
Dedicated Condensing, Medium Temperature, Outdoor System, < 9,000 Btu/h Capacity	DC.M.O, < 9,000	$1.34\times10^{-3}\times Q+0.12$
Dedicated Condensing, Medium Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	DC.M.O, ≥ 9,000	12.21
Dedicated Condensing, Low Temperature, Indoor System, < 9,000 Btu/h Capacity	DC.L.I, < 9,000	$1.93\times10^{-4}\times Q+1.89$
Dedicated Condensing, Low Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	DC.L.I, ≥ 9,000	3.63
Dedicated Condensing, Low Temperature, Outdoor System, < 9,000 Btu/h Capacity	DC.L.O, < 9,000	$5.70\times10^{-4}\times Q+1.02$
Dedicated Condensing, Low Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	DC.L.O, ≥ 9,000	6.15
Multiplex Condensing, Medium Temperature	MC.M	10.74
Multiplex Condensing, Low Temperature	MC.L	5.53
Panels		**Maximum U-Factor (Btu/h-ft^2-°F)****
Structural Panel, Medium Temperature	SP.M	$-0.012\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.024\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.041$
Structural Panel, Low Temperature	SP.L	$-0.0083\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.017\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.029$
Floor Panel, Low Temperature	FP.L	$-0.0091\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.018\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.033$
Non-Display Doors		**Maximum Energy Consumption (kWh/day)†**
Passage Door, Medium Temperature	PD.M	$0.0032\times A_{nd}+0.22$
Passage Door, Low Temperature	PD.L	$0.14\times A_{nd}+4.0$

Freight Door, Medium Temperature	FD.M	$0.0073 \times A_{nd} + 0.082$
Freight Door, Low Temperature	FD.L	$0.11 \times A_{nd} + 5.4$
Display Doors		**Maximum Energy Consumption (kWh/day)††**
Display Door, Medium Temperature	DD.M	$0.049 \times A_{dd} + 0.39$
Display Door, Low Temperature	DD.L	$0.33 \times A_{dd} + 0.38$

*Q represents the system gross capacity as calculated in AHRI 1250.

**$A_{nf\ edge}$ and $A_{nf\ core}$ represent the edge and core surface area of the structural panel, respectively. $A_{fp\ edge}$ and $A_{fp\ core}$ represent the edge and core surface area of the floor panel, respectively.

† A_{nd} represents the surface area of the non-display door.

†† A_{dd} represents the surface area of the display door.

A. Benefits and Costs to Consumers

Table I–2 presents DOE's evaluation of the economic impacts of the proposed standards on consumers of walk-in coolers and freezers, as measured by the shipment-weighted average life-cycle cost (LCC) savings [1] and the median payback period.[2] The average LCC savings are positive for all equipment classes. At TSL 4, the percentage of customers who experience net benefits or no impacts ranges from 55 to 100 percent, and the percentage of customers experiencing a net cost ranges from 0 to 45 percent. Chapter 11 presents the LCC subgroup analysis on groups of customers that may be disproportionately affected by the proposed standard. The installed cost increase over the 9-year analysis period (2017–2025) for the proposed TSL is 1.98 billion discounted at 7 percent.

TABLE I–2—SHIPMENT-WEIGHTED AVERAGE IMPACTS OF PROPOSED STANDARDS (TSL 4) ON CONSUMERS OF WALK-IN COOLERS AND WALK-IN FREEZERS

Equipment class	Average LCC savings (2012$)	Median payback period (years)
Refrigeration System Class:*		
DC.M.I	$611	4.4
DC.M.O	3,195	2.2
DC.L.I	1,117	2.7
DC.L.O	2,664	2.3
MC.M	1,724	0.5
MC.L	2,061	0.4
Panel Class:		
SP.M**	8	4.5
SP.L**	72	3.6
FP.L**	30	4.5
Non-Display Door Class:		
PD.M	0.3	5.5
PD.L	52	4.7
FD.M	1	5.4
FD.L	136	2.9
Display Door Class:		
DD.M	228	2.2
DD.L	200	N/A

* For dedicated condensing (DC) refrigeration systems, results include both capacity ranges.
** Results are per 100 square feet.

B. Impact on Manufacturers

The industry net present value (INPV) is the sum of the discounted cash flows to the industry from the base year through the end of the analysis period (2013 to 2046). Using real discount rates of 10.5 percent for panels, 9.4 percent for doors, and 10.4 percent for refrigeration [3], DOE estimates that the industry net present value (INPV) for manufacturers of walk-in cooler and freezer refrigeration systems, panels, and doors in the base case (without new standards) is $851 million in 2012$. Under the proposed standards, DOE expects the impact on INPV to range from no change to a 9 percent decrease.

[1] Life-cycle cost (LCC) of commercial refrigeration equipment is the cost to customers of owning and operating the equipment over the entire life of the equipment. Life-cycle cost savings are the reductions in the life-cycle costs due to amended energy conservation standards when compared to the life-cycle costs of the equipment in the absence of amended energy conservation standards. Further discussion of the LCC analysis can be found in Chapter 8 of the TSD.

[2] Payback period (PBP) refers to the amount of time (in years) it takes customers to recover the increased installed cost of equipment associated with new or amended standards through savings in operating costs. Further discussion of the PBP can be found in Chapter 8 of the TSD.

[3] These rates were used to discount future cash flows in the Manufacturer Impact Analysis. The discount rates were calculated from SEC filings and then adjusted based on cost of capital feedback collected from walk-in door, panel, and refrigeration manufacturers in MIA interviews. For a detailed explanation of how DOE arrived at these discount rates, refer to Chapter 12 of the NOPR TSD.

Total industry conversion costs estimated to be $51 million are assumed to be incurred in the years prior to the start of compliance with the standards. Based on DOE's interviews with the manufacturers of walk-in coolers and walk-in freezers, DOE does not expect significant loss of employment.

C. National Benefits [4]

DOE's analyses indicate that the proposed standards would save a significant amount of energy. The lifetime full-fuel-cycle energy savings for walk-in coolers and freezers purchased in the 30-year period that begins in the year of compliance with new standards (2017–2046) amount to 5.39 quadrillion British thermal units (quads). The average annual energy savings over the life of walk-in coolers and freezers purchased in 2017 through 2046 is 0.18 quads, which is equivalent to 14.8 percent of the annual U.S commercial refrigeration sector energy.[5]

The cumulative net present value (NPV) of total consumer costs and savings of the proposed standards ranges from $8.6 billion (at a 7-percent discount rate) to $24.3 billion (at a 3-percent discount rate) for walk-in coolers and freezers. This NPV expresses the estimated total value to customers of future operating cost savings minus the estimated increased product costs for products purchased in 2017–2046.

In addition, the proposed standards would have significant environmental benefits. The energy savings would result in cumulative emission reductions of 298 million metric tons (Mt) [6] of carbon dioxide (CO_2), 1,428 thousand tons of methane, 379.5 thousand tons of sulfur dioxide (SO_2), 443.8 thousand tons of nitrogen oxides (NO_X), and 0.6 tons of mercury (Hg).[7] [8]

The value of the CO_2 reductions is calculated using a range of values per metric ton of CO_2 (otherwise known as the Social Cost of Carbon, or SCC) developed by an interagency process. The derivation of the SCC values is discussed in section IV.M. DOE estimates the net present monetary value of the CO_2 emissions reduction is between $1.9 billion and $27.5 billion, depending on the SCC value used, over a 30-year analysis period. DOE also estimates the net present monetary value of the NO_X emissions reduction is $243 million at a 7-percent discount rate and $553 million at a 3-percent discount rate over a 30-year analysis period. Over a 9-year analysis period, DOE estimates the net present monetary value of the CO_2 emissions reduction is between $0.33 billion and $4.07 billion, depending on the SCC value used, while the net present monetary value of the NO_X emissions reduction is $70.5 million at a 7-percent discount rate and $99.8 million at a 3-percent discount rate.[9] DOE notes that the estimated total social benefits of the rule outweigh the costs whether a 30-year or a 9-year analysis period is used.

Table I–3 summarizes the national economic costs and benefits expected to result from the proposed standards for walk-in coolers and walk-in freezers.

TABLE I–3—SUMMARY OF NATIONAL ECONOMIC BENEFITS AND COSTS OF WALK-IN COOLER AND WALK-IN FREEZER ENERGY CONSERVATION STANDARDS

Category	Present value *Billion 2012$*	Discount rate (percent)
Benefits		
Operating Cost Savings	12.4	7
	31.6	3
CO_2 Reduction Monetized Value (at $12.9/t case)*	1.9	5
CO_2 Reduction Monetized Value (at $40.8/t case)*	9.0	3
CO_2 Reduction Monetized Value (at $62.2/t case)*	14.4	2.5
CO_2 Reduction Monetized Value (at $117.0/t case)*	27.5	3
NO_X Reduction Monetized Value (at $2,639/Ton)**	0.24	7
	0.55	3
Total Benefits†	21.6	7
	41.1	3
Costs		
Incremental Installed Costs	3.8	7
	7.2	3
Net Benefits		
Including CO_2 and NO_X Reduction Monetized Value	17.8	7
	33.9	3

*The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The values in parentheses represent the SCC in 2015. The SCC time series incorporate an escalation factor.

[4] All monetary values in this section are expressed in 2012 dollars and are discounted to 2013.

[5] Total U.S. commercial sector energy (source energy) used for refrigeration in 2010 was 1.21 quads. Source: U.S. Department of Energy—Office of Energy Efficiency and Renewable Energy. *Buildings Energy Data Book,* Table 3.1.4, 2010 Commercial Energy End-Use Splits, by Fuel Type (Quadrillion Btu). 2012. (Last accessed April 23, 2013.) *http://buildingsdatabook.eren.doe.gov/TableView.aspx?table=3.1.4*

[6] A metric ton is equivalent to 1.1 short tons. Results for NO_X and Hg are presented in short tons.

[7] DOE calculates emissions reductions relative to the Annual Energy Outlook (AEO) 2013 Reference case, which generally represents current legislation and environmental regulations for which implementing regulations were available as of December 31, 2012.

[8] DOE also estimated CO_2 and CO_2 equivalent (CO_2eq) emissions that occur through 2030 (CO_2eq includes greenhouse gases such as CH_4 and N_2O). The estimated emissions reductions through 2030 are 79 million metric tons CO_2, 7,897 thousand tons CO_2eq for CH_4, and 338 thousand tons CO_2eq for N_2O.

[9] DOE has decided to await further guidance regarding consistent valuation and reporting of Hg emissions before it monetizes Hg in its rulemakings.

** The value represents the average of the low and high NO_X values used in DOE's analysis.
† Total Benefits for both the 3 percent and 7 percent cases are derived using the CO_2 reduction monetized value series corresponding to average SCC with 3-percent discount rate.

The benefits and costs of today's proposed standards, for equipment sold in 2017–2046, can also be expressed in terms of annualized values. The annualized monetary values are the sum of (1) the annualized national economic value of the benefits from consumer operation of equipment that meets the proposed standards (consisting primarily of operating cost savings from using less energy, minus increases in equipment purchase and installation costs, and (2) the annualized monetary value of the benefits of emission reductions, including CO_2 emission reductions.[10]

Although combining the values of operating savings and CO_2 emission reductions provides a useful perspective, two issues should be considered. First, the national operating savings are domestic U.S. consumer monetary savings that occur as a result of market transactions while the value of CO_2 reductions is based on a global value. Second, the assessments of operating cost savings and CO_2 savings are performed with different methods that use different time frames for analysis. The national operating cost savings is measured for the lifetime of walk-ins shipped from 2017–2046. The SCC values, on the other hand, reflect the present value of some future climate-related impacts resulting from the emission of one ton of carbon dioxide in each year. These impacts continue well beyond 2100.

Table I–4 shows the estimates of annualized benefits and costs of the proposed standards. (All monetary values below are expressed in 2012$.) The results under the primary estimate are as follows. Using a 7-percent discount rate for benefits and costs other than CO_2 reduction, for which DOE used a 3-percent discount rate along with the average SCC series that uses a 3-percent discount rate, the cost of the standards proposed in today's rule is $367 million per year in increased equipment costs, while the annualized benefits are $1.225 billion per year in reduced equipment operating costs, $499 million in CO_2 reductions, and $24 million in reduced NO_X emissions. In this case, the net benefit amounts to $1.382 billion per year. Using a 3-percent discount rate for all benefits and costs and the average SCC series, the cost of the standards proposed in today's rule is $399 million per year in increased equipment costs, while the benefits are $1.606 billion per year in reduced operating costs, $499 million in CO_2 reductions, and $31 million in reduced NO_X emissions. In this case, the net benefit amounts to $1.737 billion per year.

TABLE I–4—ANNUALIZED BENEFITS AND COSTS OF PROPOSED STANDARDS FOR WALK-IN COOLERS AND WALK-IN FREEZERS

	Discount rate	Primary estimate* (million 2012$/year)	Low net benefits estimate*	High net benefits estimate*
Benefits				
Operating Cost Savings	7%	1,225	1,188	1,279
	3%	1,606	1,544	1,687
CO_2 Reduction Monetized Value (at $12.9t case)**.	5%	142	142	142
CO_2 Reduction Monetized Value (at $40.8/t case)**.	3%	499	499	499
CO_2 Reduction Monetized Value (at $62.2/t case)**.	2.50%	739	739	739
CO_2 Reduction Monetized Value (at $117.0/t case)**.	3%	1,534	1,534	1,534
NO_X Reduction Monetized Value (at $2,639/Ton)**.	7%	24	24	24
	3%	31	31	31
Total Benefits†	7% plus CO_2 range	1,748	1,712	1,803
	7%	1,249	1,212	1,303
	3%	1,637	1,574	1,718
	3% plus CO_2 range	2,136	2,074	2,217
Costs				
Total Incremental Installed Costs	7%	367	377	357
	3%	399	414	385
Net Benefits				
Total†	7% plus CO_2 range	1,382	1,335	1,446
	7%	883	835	946
	3%	1,238	1,160	1,333

[10] DOE used a two-step calculation process to convert the time-series of costs and benefits into annualized values. First, DOE calculated a present value in 2013, the year used for discounting the NPV of total consumer costs and savings, for the time-series of costs and benefits using discount rates of three and seven percent for all costs and benefits except for the value of CO_2 reductions. For the latter, DOE used a range of discount rates, as shown in Table I.3. From the present value, DOE then calculated the fixed annual payment over a 30-year period (2014 through 2043) that yields the same present value. The fixed annual payment is the annualized value. Although DOE calculated annualized values, this does not imply that the time-series of cost and benefits from which the annualized values were determined is a steady stream of payments.

TABLE I–4—ANNUALIZED BENEFITS AND COSTS OF PROPOSED STANDARDS FOR WALK-IN COOLERS AND WALK-IN FREEZERS—Continued

	Discount rate	Primary estimate*	Low net benefits estimate*	High net benefits estimate*
		(million 2012$/year)		
	3% plus CO_2 range	1,737	1,660	1,832

* This table presents the annualized costs and benefits associated with walk-in coolers and freezers shipped in 2017 – 2046. These results include benefits to consumers which accrue after 2046 from the walk-in coolers and freezers purchased in 2017–2046. Costs incurred by manufacturers, some of which may be incurred in preparation for the rule, are not directly included, but are indirectly included as part of incremental equipment costs. The Primary, Low Benefits, and High Benefits Estimates utilize projections of energy prices from the AEO2013 Reference case, Low Estimate, and High Estimate, respectively. In addition, incremental product costs reflect a medium decline rate for projected product price trends in the Primary Estimate, a low decline rate for projected product price trends using a Low Benefits Estimate, and a high decline rate for projected product price trends using a High Benefits Estimate.

** The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the three integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The values in parentheses represent the SCC in 2015. The SCC time series incorporate an escalation factor. The value for NO_X is the average of the low and high values used in DOE's analysis.

† Total Benefits for both the 3-percent and 7-percent cases are derived using the series corresponding to average SCC with 3-percent discount rate. In the rows labeled "7% plus CO_2 range" and "3% plus CO_2 range," the operating cost and NO_X benefits are calculated using the labeled discount rate, and those values are added to the full range of CO_2 values.

DOE has tentatively concluded that the proposed standards represent the maximum improvement in energy efficiency that is technologically feasible and economically justified. DOE further notes that manufacturers already produce commercially available equipment that achieve these levels for most, if not all, equipment classes covered by today's proposal. Based on the analyses described above, DOE has tentatively concluded that the benefits of the proposed standards to the Nation (energy savings, positive NPV of consumer benefits, consumer LCC savings, and emission reductions) would outweigh the burdens (loss of INPV for manufacturers).

DOE also considered more-stringent and less-stringent efficiency levels as trial standard levels (TSLs), and is still considering them in this rulemaking. However, DOE has tentatively concluded that the potential burdens of the more-stringent efficiency levels would outweigh the projected benefits. Based on consideration of the public comments DOE receives in response to this notice and related information collected and analyzed during the course of this rulemaking effort, DOE may adopt efficiency levels presented in this notice that are either higher or lower than the proposed standards, or some combination of level(s) that incorporate the proposed standards in part.

II. Introduction

The following section briefly discusses the statutory authority underlying today's proposal, as well as some of the relevant historical background related to walk-ins.

A. Authority

Title III, Part C of EPCA, Public Law 94–163 (42 U.S.C. 6311–6317, as codified), added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, a program covering certain industrial equipment, which includes the walk-in coolers and walk-in freezers that are the focus of this notice.[11] [12] (42 U.S.C. 6311(1), (20), 6313(f) and 6314(a)(9)) Walk-ins consist of two major pieces—the structural ''envelope'' within which items are stored and a refrigeration system that cools the air in the envelope's interior.

DOE's energy conservation program for covered equipment generally consists of four parts: (1) Testing; (2) labeling; (3) the establishment of Federal energy conservation standards; and (4) certification and enforcement procedures. For walk-ins, DOE is responsible for the entirety of this program. The DOE test procedures for walk-ins, including those prescribed by Congress in EISA 2007 and those established by DOE in the test procedure final rule, currently appear at title 10 of the Code of Federal Regulations (CFR) part 431, section 304.

Any new or amended performance standards that DOE prescribes for walk-ins must achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified. (42 U.S.C. 6313(f)(4)(A)) For purposes of this rulemaking, DOE also plans to adopt those standards that are likely to result in a significant conservation of energy that satisfies both of these requirements. See 42 U.S.C. 6295(o)(3)(B).

Technological feasibility is determined by examining technologies or designs that could be used to improve the efficiency of the covered equipment. DOE considers a design to be technologically feasible if it is in use by the relevant industry or if research has progressed to the development of a working prototype.

In ascertaining whether a particular standard is economically justified, DOE considers, to the greatest extent practicable, the following factors:

1. The economic impact of the standard on manufacturers and consumers of the equipment subject to the standard;

2. The savings in operating costs throughout the estimated average life of the covered equipment in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered equipment that are likely to result from the imposition of the standard;

3. The total projected amount of energy or, as applicable, water savings likely to result directly from the imposition of the standard;

4. Any lessening of the utility or the performance of the covered equipment likely to result from the imposition of the standard;

5. The impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;

6. The need for national energy and water conservation; and

[11] All references to EPCA in this document refer to the statute as amended through the American Energy Manufacturing Technical Corrections Act (AEMTCA), Public Law 112–210 (Dec. 18, 2012).

[12] For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A–1.

7. Other factors the Secretary of Energy (Secretary) considers relevant. (42 U.S.C. 6295(o)(2)(B)(i) (I)–(VII))

DOE does not plan to prescribe an amended or new standard if interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States of any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States. Further, under EPCA's provisions for consumer products, there is a rebuttable presumption that a standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure. (42 U.S.C. 6295(o)(2)(B)(iii)) For purposes of its walk-in analysis, DOE plans to account for these factors.

Additionally, when a type or class of covered equipment such as walk-ins has two or more subcategories, in promulgating standards for such equipment, DOE often specifies more than one standard level. DOE generally will adopt a different standard level than that which applies generally to such type or class of products for any group of covered products that have the same function or intended use if DOE determines that products within such group (A) consume a different kind of energy than that consumed by other covered products within such type (or class) or (B) have a capacity or other performance-related feature that other products within such type (or class) do not have, and which justifies a higher or lower standard. Generally, in determining whether a performance-related feature justifies a different standard for a group of products, DOE considers such factors as the utility to the consumer of the feature and other factors DOE deems appropriate. In a rule prescribing such a standard, DOE typically includes an explanation of the basis on which such higher or lower level was established. DOE plans to follow a similar process in the context of today's rulemaking.

DOE notes that since the inception of the statutory requirements setting standards for walk-ins, Congress has since made one additional amendment to those provisions. That amendment provides that the wall, ceiling, and door insulation requirements detailed in 42 U.S.C. 6313(f)(1)(C) do not apply to the given component if the component's manufacturer has demonstrated to the Secretary's satisfaction that ''the component reduces energy consumption at least as much'' if those specified requirements were to apply to that manufacturer's component. American Energy Manufacturing Technology Corrections Act, Public Law 112–210, Section 2 (Dec. 18, 2012) (codified at 42 U.S.C. 6313(f)(6)) (AEMTCA). Manufacturers seeking to avail themselves of this provision must ''provide to the Secretary all data and technical information necessary to fully evaluate its application.'' *Id.* DOE is proposing to codify this amendment into its regulations.

Since its codification, one company, HH Technologies, submitted data on May 24, 2013, demonstrating that its RollSeal doors satisfied this new AEMTCA provision. DOE reviewed these data and all other submitted information and concluded that the RollSeal doors at issue satisfied 42 U.S.C. 6313(f)(6). Accordingly, DOE issued a determination letter on June 14, 2013, indicating that these doors met Section 6313(f)(6) and that the applicable insulation requirements did not apply to the RollSeal doors HH Technologies identified. Nothing in this proposed rule affects the previous determination regarding HH Technologies.

Federal energy conservation requirements generally pre-empt state laws or regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297(a); 42 U.S.C. 6316(b)) However, EPCA provides that for walk-ins in particular, any state standard issued before publication of the final rule shall not be pre-empted until the standards established in the final rule take effect. (42 U.S.C 6316(h)(2)(B))

Where applicable, DOE generally considers standby and off mode energy use for certain covered products or equipment when developing energy conservation standards. See 42 U.S.C. 6295(gg)(3). Because the vast majority of walk-in coolers and walk-in freezers operate continuously to keep their contents cold at all times, DOE is not proposing standards for standby and off mode energy use.

B. Background

1. Current Standards

EPCA defines a walk-in cooler and a walk-in freezer as an enclosed storage space refrigerated to temperatures above, and at or below, respectively, 32 °F that can be walked into. The statute also defines walk-in coolers and freezers as having a total chilled storage area of less than 3,000 square feet, excluding products designed and marketed exclusively for medical, scientific, or research purposes. (42 U.S.C 6311(20)) EPCA also provides prescriptive standards for walk-in coolers and freezers manufactured on or after January 1, 2009, which are described below.

First, EPCA sets forth general prescriptive standards for walk-ins. Walk-ins must have automatic door closers that firmly close all walk-in doors that have been closed to within 1 inch of full closure, for all doors narrower than 3 feet 9 inches and shorter than 7 feet; walk-ins must also have strip doors, spring hinged doors, or other methods of minimizing infiltration when doors are open. Walk-ins must also contain wall, ceiling, and door insulation of at least R–25 for coolers and R–32 for freezers, excluding glazed portions of doors and structural members, and floor insulation of at least R–28 for freezers. Walk-in evaporator fan motors of under 1 horsepower and less than 460 volts must be electronically commutated motors (brushless direct current motors) or three-phase motors, and walk-in condenser fan motors of under 1 horsepower must use permanent split capacitor motors, electronically commutated motors, or three-phase motors. Interior light sources must have an efficacy of 40 lumens per watt or more, including any ballast losses; less-efficacious lights may only be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the walk-in is unoccupied. See 42 U.S.C. 6313(f)(1).

Second, EPCA sets forth new requirements related to electronically commutated motors for use in walk-ins. See 42 U.S.C. 6313(f)(2)). Specifically, in those walk-ins that use an evaporator fan motor with a rating of under 1 horsepower and less than 460 volts, that motor must be either a three-phase motor or an electronically commutated motor unless DOE determined prior to January 1, 2009 that electronically commutated motors are available from only one manufacturer. (42 U.S.C. 6313(f)(2)(A)) DOE determined by January 1, 2009 that these motors were available from more than one manufacturer; thus, according to EPCA, walk-in evaporator fan motors with a rating of under 1 horsepower and less than 460 volts must be either three-phase motors or electronically commutated motors. DOE documented this determination in the rulemaking docket as docket ID EERE–2008–BT–STD–0015–0072. This document can be

found at *http://www.regulations.gov/#!documentDetail;D=EERE-2008-BT-STD-0015-0072*. Additionally, EISA provided DOE with the authority to permit the use of other types of motors as evaporative fan motors—if DOE determines that, on average, those other motor types use no more energy in evaporative fan applications than electronically commutated motors. (42 U.S.C. 6313(f)(2)(B)) DOE is unaware of any other motors that would offer performance levels comparable to the electronically commutated motors required by Congress. Accordingly, all evaporator motors rated at under 1 horsepower and under 460 volts must be electronically commutated motors or three-phase motors.

Third, EPCA sets forth additional requirements for walk-ins with transparent reach-in doors. Freezer doors must have triple-pane glass with either heat-reflective treated glass or gas fill for doors and windows for freezers. Cooler doors must have either double-pane glass with treated glass and gas fill or triple-pane glass with treated glass or gas fill. (42 U.S.C. 6313(f)(3)(A)–(B)) For walk-ins with transparent reach-in doors, EISA also prescribed specific anti-sweat heater-related requirements: Walk-ins without anti-sweat heater controls must have a heater power draw of no more than 7.1 or 3.0 watts per square foot of door opening for freezers and coolers, respectively. Walk-ins with anti-sweat heater controls must either have a heater power draw of no more than 7.1 or 3.0 watts per square foot of door opening for freezers and coolers, respectively, or the anti-sweat heater controls must reduce the energy use of the heater in a quantity corresponding to the relative humidity of the air outside the door or to the condensation on the inner glass pane. See 42 U.S.C. 6313(f)(3)(C)–(D).

2. History of Standards Rulemaking for Walk-In Coolers and Freezers

EPCA directs the Secretary to issue performance-based standards for walk-ins that would apply to equipment manufactured 3 years after the final rule is published, or 5 years if the Secretary determines by rule that a 3-year period is inadequate. (42 U.S.C. 6313(f)(4))

DOE initiated the current rulemaking by publishing a notice announcing the availability of its ''Walk-In Coolers and Walk-In Freezers Energy Conservation Standard Framework Document'' and a meeting to discuss the document. The notice also solicited comment on the matters raised in the document. 74 FR 411 (Jan 6, 2009). More information on the framework document is available at: *http://www1.eere.energy.gov/buildings/appliance_standards/rulemaking.aspx/ruleid/30*. The framework document described the procedural and analytical approaches that DOE anticipated using to evaluate energy conservation standards for walk-ins and identified various issues to be resolved in conducting this rulemaking.

DOE held the framework public meeting on February 4, 2009, in which it: (1) Presented the contents of the framework document; (2) described the analyses it planned to conduct during the rulemaking; (3) sought comments from interested parties on these subjects; and (4) in general, sought to inform interested parties about, and facilitate their involvement in, the rulemaking. Major issues discussed at the public meeting included: (1) The scope of coverage for the rulemaking; (2) development of a test procedure and appropriate test metrics; (3) manufacturer and market information, including distribution channels; (4) equipment classes, baseline units, and design options to improve efficiency; and (5) life-cycle costs to consumers, including installation, maintenance, and repair costs, and any consumer subgroups DOE should consider. At the meeting and during the comment period on the framework document, DOE received many comments that helped it identify and resolve issues pertaining to walk-ins relevant to this rulemaking.

DOE then gathered additional information and performed preliminary analyses to help develop potential energy conservation standards for this equipment. This process culminated in DOE's announcement of another public meeting to discuss and receive comments on the following matters: (1) The equipment classes DOE planned to analyze; (2) the analytical framework, models, and tools that DOE used to evaluate standards; (3) the results of the preliminary analyses performed by DOE; and (4) potential standard levels that DOE could consider. 75 FR 17080 (April 5, 2010) (the April 2010 Notice). DOE also invited written comments on these subjects and announced the availability on its Web site of a preliminary technical support document (preliminary TSD) it had prepared to inform interested parties and enable them to provide comments. *Id.* (More information about the preliminary TSD is available at: *http://www1.eere.energy.gov/buildings/appliance_standards/rulemaking.aspx/ruleid/30*.)Finally, DOE sought views on other relevant issues that participants believed either would impact walk-in standards or that the proposal should address. *Id.* at 17083.

The preliminary TSD provided an overview of the activities DOE undertook to develop standards for walk-ins and discussed the comments DOE received in response to the framework document. The preliminary TSD also addressed separate standards for the walk-in envelope and the refrigeration system, as well as compliance and enforcement responsibilities and food safety regulatory concerns. The document also described the analytical framework that DOE used (and continues to use) in considering standards for walk-in coolers and freezers, including a description of the methodology, the analytical tools, and the relationships between the various analyses that are part of this rulemaking. Additionally, the preliminary TSD presented in detail each analysis that DOE had performed for these products up to that point, including descriptions of inputs, sources, methodologies, and results. These analyses were as follows:

- A *market and technology assessment* addressed the scope of this rulemaking, identified the potential classes for walk-in coolers and freezers, characterized the markets for these products, and reviewed techniques and approaches for improving their efficiency;
- A *screening analysis* reviewed technology options to improve the efficiency of walk-in coolers and freezers, and weighed these options against DOE's four prescribed screening criteria;
- An *engineering analysis* estimated the manufacturer selling prices (MSPs) associated with more energy-efficient walk-in coolers and freezers;
- An *energy use analysis* estimated the annual energy use of walk-in coolers and freezers;
- A *markups analysis* converted estimated MSPs derived from the engineering analysis to consumer prices;
- A *life-cycle cost analysis* calculated, for individual consumers, the discounted savings in operating costs throughout the estimated average life of walk-in coolers and freezers, compared to any increase in installed costs likely to result directly from the imposition of a given standard;
- A *payback period analysis* estimated the amount of time it takes individual consumers to recover the higher purchase price expense of more energy-efficient products through lower operating costs;
- A *shipments analysis* estimated shipments of walk-in coolers and freezers over the time period examined in the analysis, and was used in performing the national impact analysis;

• A *national impact analysis* assessed the national energy savings and the national net present value of total consumer costs and savings that are expected to result from specific potential energy conservation standards for walk-in coolers and freezers; and

• A *preliminary manufacturer impact analysis (MIA)* took the initial steps in evaluating the effects on manufacturers of new efficiency standards.

The public meeting announced in the April 2010 Notice took place on May 19, 2010. At this meeting, DOE presented the methodologies and results of the analyses set forth in the preliminary TSD. Interested parties that participated in the public meeting discussed a variety of topics, but the comments centered on the following issues: (1) Separate standards for the refrigeration system and the walk-in envelope; (2) responsibility for compliance; (3) equipment classes; (4) technology options; (5) energy modeling; (6) installation, maintenance, and repair costs; (7) markups and distributions chains; (8) walk-in cooler and freezer shipments; and (9) test procedures. The comments received since publication of the April 2010 Notice, including those received at the May 2010 public meeting, have contributed to DOE's proposed resolution of the issues in this rulemaking as they pertain to walk-ins. This NOPR responds to the issues raised by the commenters. (A parenthetical reference at the end of a quotation or paraphrase provides the location of the item in the public record.)

III. General Discussion

In preparing today's notice, DOE considered input from the various interested parties who commented on the framework document and preliminary analysis, information obtained from manufacturer interviews, and additional research that DOE conducted. The interested parties who provided comments to DOE during the framework document and preliminary analysis phases included the following:

TABLE III–1—FRAMEWORK AND PRELIMINARY ANALYSIS COMMENTERS

Commenter(s)	Abbreviated designation	Affiliation	Comment number(s) in docket
AFM Corporation	AFM	Manufacturer	0012.1
Air-Conditioning, Heating, and Refrigeration Institute	AHRI	Trade Association	0036.1, 0055.1
American Chemistry Council	ACC	Material Supplier	0062.1
American Chemistry Council Center for the Polyurethanes Industry	CPI	Material Supplier	0052.1
American Council for an Energy Efficient Economy, Appliance Standards Awareness Project, Alliance to Save Energy, Natural Resources Defense Council, Northwest Energy Efficiency Alliance.	Joint Advocates	Energy Efficiency Advocates.	0070.1
American Panel Corporation	American Panel	Manufacturer	0039.1, 0048.1
AmeriKooler, Inc.	AmeriKooler	Manufacturer	0065.1
Appliance Standards Awareness Project	ASAP	Energy Efficiency Advocate.	0024.1
Bally Refrigerated Boxes, Inc.	Bally	Manufacturer	0023.1
Carpenter Co. Chemical Systems Division	Carpenter	Material Supplier	0068.1
Craig Industries, Inc. and U.S. Cooler Company	Craig Industries	Manufacturer	0064.1
Craig Industries, Inc. and US Cooler Company	Craig Industries	Manufacturer	0011.1, 0025.1, 0038.1, 0064.1, 0071.1
CrownTonka Walk-Ins	CrownTonka	Manufacturer	0026.1, 0057.1
Earthjustice	Earthjustice	Energy Efficiency Advocate.	0027.1, 0047.1
Edison Electric Institute	EEI	Energy Efficiency Advocate.	0028.1
Eliason Corporation	Eliason	Manufacturer	0013.1, 0022.1
Foam Supplies, Inc.	FSI	Material Supplier	0029.1
Heatcraft Refrigeration Products LLC	Heatcraft	Manufacturer	0058.1, 0069.1
Heating, Air-conditioning & Refrigeration Distributors International	HARDI	Trade Association	0031.1
Hill Phoenix Walk-Ins	Hill Phoenix	Manufacturer	0066.1
Hired Hand Technologies	Hired Hand	Manufacturer	0030.1, 0050.1
Hussmann and Ingersoll Rand	Ingersoll Rand	Manufacturer	0053.1
Kason Industries, Inc.	Kason	Component Supplier.	0009.1, 0019.1
Kysor Panel Systems	Kysor	Manufacturer	0032.1, 0054.1
Manitowoc Ice	Manitowoc	Manufacturer	0056.1
Master-Bilt Products, Inc.	Master-Bilt	Manufacturer	0033.1, 0046.1
NanoPore Insulation, LLC	NanoPore	Material Supplier	0067.1
Nor-Lake, Incorporated	Nor-Lake	Manufacturer	0049.1
Owens Corning Foam Insulation, LLC	Owens Corning	Material Supplier	0034.1
Southern California Edison and Technology Test Centers	SCE	Utility	0035.1
Southern California Edison, San Diego Gas & Electric, Pacific Gas & Electric Company, Sacramento Municipal Utility District.	Joint Utilities	Utility Group	0061.1
The Northwest Energy Efficiency Alliance and the Northeast Power Coordinating Council.	NEEA and NPCC	Utility Representative.	0021.1, 0059.1
Zero-Zone, Inc.	Zero-Zone	Manufacturer	0051.1

A. Component Level Standards

In the framework document, DOE considered setting standards that would apply to the entire walk-in. See the framework document at *http://www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/wicf_framework_doc.pdf*. Several interested parties expressed concern about this approach because of the variety among assembled walk-ins, which would make compliance with

such a walk-in standard difficult and burdensome. Stakeholders also stated that different components of each walk-in would likely be manufactured by different entities, which would make it difficult to enforce any standard that applied to an entire walk-in.

After considering the comments submitted on the framework document, DOE modified its approach in the preliminary analysis. During that phase, it had tentatively identified two primary components of a walk-in: the envelope (the insulated box that separates the exterior from the interior) and the refrigeration system (the mechanical equipment that cools the envelope's interior). DOE also indicated that it was tentatively considering developing separate standards for refrigeration systems and envelopes.

Several interested parties agreed with this general approach. Manitowoc supported separate standards for the envelope and refrigeration system, stating that the envelope is typically supplied by one manufacturer and the refrigeration system is typically supplied by one or more manufacturers. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 38 and No. 0056.1 at p. 1) Manitowoc further stated that it would not be practical to regulate the energy used by the entire walk-in assembly because walk-ins are highly customized. Manitowoc estimated that fewer than 20 percent of its walk-ins use a standard envelope and refrigeration system combination. (Manitowoc, No. 0056.1 at p. 1) Pacific Gas and Electric Company, Southern California Edison, Sempra Energy Utility, and the Sacramento Municipal Utility District (hereafter referred to as the ''Joint Utilities'') also agreed with DOE's proposal to separate the refrigeration system standards from the envelope standards because the components are separately produced and often separately sold. (Joint Utilities, No. 0061.1 at pp. 2–3) American Panel stated that the envelope and refrigeration systems must be considered separately because the majority of WICFs are custom-made. (American Panel, No. 0048.1 at p. 4) Kysor, Master-Bilt, AHRI, and CrownTonka all supported separate standards for the envelope and refrigeration systems. (Kysor, Public Meeting Transcript, No. 0045 at p. 39; Master-Bilt, No. 0046.1 at p. 1; AHRI, No. 0055.1 at p. 2; CrownTonka, No. 0057.1 at p. 1) One interested party did not agree with this approach. Craig Industries, also doing business as U.S. Cooler, commented that DOE should establish a combination standard for the envelope and refrigeration system to permit manufacturers greater flexibility when designing walk-ins. Under this combination approach, a more efficient envelope could be paired with a less efficient refrigeration system, or vice versa, to achieve the same overall efficiency at a lower cost. (Craig Industries, No. 0064.1 at p. 1)

Additionally, interested parties suggested that DOE extend the idea of separate standards to subcomponents of envelopes and refrigeration systems. The Joint Utilities stated that a component performance approach would accurately capture efficiency measurements associated with the components, and that energy savings associated with targeted components would apply to different configurations of whole walk-ins and possibly even to repairs and retrofits. (Joint Utilities, No. 0061.1 at p. 4) The Joint Utilities further added that DOE should consider component performance standards for major walk-in components that could be enforced at the level of the manufacturer's catalog and could be labeled for easy inspection. (Joint Utilities, No. 0061.1 at p. 12) Hill Phoenix also recommended that large construction-based envelopes (*i.e.,* those constructed in a manner similar to a building) be regulated at the component level, asserting that these envelopes may need many different options and design flexibility, without which a whole-envelope calculation would likely limit the accuracy of any estimate of a walk-in's total energy use. (Hill Phoenix, No. 0066.1 at p. 1) As stated previously, Manitowoc agreed that it would not be practical to regulate the energy used by the entire walk-in assembly because walk-ins are highly customized. (Manitowoc, No. 0056.1 at p. 1) Manitowoc also remarked that performance metrics could be developed for sub-classes of the components of an envelope, and the component manufacturers should be responsible for their own components. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 46)

Other stakeholders discussed specific sub-components of the envelope or the refrigeration system that could be regulated. Kysor mentioned panels and doors as envelope components that should be considered separately and stated that because these components are often manufactured by separate parties, the manufacturer of each component should be responsible for the performance of that component. (Kysor, Public Meeting Transcript, No. 0045 at p. 41) The Northwest Energy Efficiency Alliance (NEEA) and Northwest Power Conservation Council (NPCC) recommended that DOE develop efficiency performance standards for display and solid doors separately so that an envelope manufacturer could certify that the envelope meets specified standards. (NEEA and NPCC, No. 0059.1 at p. 2)

Likewise, with regard to the refrigeration system, NEAA and NPCC recommended that DOE regulate the efficiency of the cooling system components separately, an example of which would be setting a performance requirement for the specific efficiency of unit coolers based on control algorithms. (NEAA and NPCC, No. 0059.1 at pp. 2 and 7) The Joint Utilities also stated that a refrigeration system requirement should not be based on a single metric and added that the indoor unit (*i.e.,* unit cooler) could have a minimum efficiency requirement regardless of other components of the refrigeration system. (Joint Utilities, No. 0061.1 at p. 4 and Public Meeting Transcript, No. 0045 at p. 64) Manitowoc, on the other hand, recommended that manufacturers have the option of rating the entire refrigeration system and that considering the condensing unit separately would not allow manufacturers to implement options that would improve the efficiency of a matched system. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 38) Manitowoc further remarked that testing the refrigeration system as an integrated, single component and calculating the overall annual efficiency has the greatest potential for optimizing energy efficiency, but added that DOE should permit the individual components to be tested and the performance stated for the individual parts. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 59)

After carefully considering the comments described above, DOE proposes an approach for the envelope that would set separate standards for panels, display doors, and non-display doors for the reasons set forth below.

Different manufacturers typically produce panels and doors (both display and non-display types) for use in walk-in applications. In particular, display doors are commonly manufactured separately because their unique construction and materials require specialized manufacturing methods. Additionally, the modular nature of a walk-in envelope means that it is constructed of relatively standardized components that can be assembled in a virtually infinite number of configurations that may affect the overall consumption of a given walk-in unit. By regulating the performance of those standardized components, manufacturers will be able to choose

compliant components that should help ensure that whatever walk-in configuration is built satisfies the minimal level of energy consumption and efficiency that DOE may prescribe. Because of the large number of possible combinations of panels and doors that could make up an envelope, the burdens presented by a system-based approach for the entire walk-in unit would also likely be significantly greater than the burdens of the proposed approach because each walk-in envelope configuration would need to be separately certified as compliant. Alternatively, if DOE were to establish a set envelope of specified dimensions for a manufacturer to build and then to certify as compliant, the efficiency or energy usage measurement from that envelope would not only be more costly to obtain, but it would also not necessarily reflect the actual energy usage or efficiency of a given walk-in that is installed in the field.

DOE also notes that requiring an overall envelope performance standard would be likely to present significant enforcement burdens, as it would likely require DOE to test several fully constructed envelopes in order to ascertain the energy efficiency performance of a given envelope. DOE tentatively believes that such an approach, at this time, would be unduly burdensome.

DOE is not, however, proposing to set standards for the constituent components of refrigeration systems separately. To ensure that manufacturers have sufficient flexibility to improve the energy efficiency performance of their systems, DOE proposes to set a performance standard for the overall refrigeration system and to regulate that system as a single component. This approach would help ensure that the final refrigeration system assembled by the manufacturer would meet a given level of efficiency and would account for the interactive effects of the numerous components comprising the overall system. For example, some refrigeration systems implement complex control strategies, the benefits of which could not be adequately demonstrated if the condensing unit and unit cooler were considered separately for purposes of setting standards.

In summary, DOE proposes to set specific component standards for the panels, display doors, and non-display doors of a walk-in, and a single standard to assess the overall performance of the refrigeration system. DOE acknowledges that, by not establishing a standard for the energy use of the entire walk-in, manufacturers cannot meet the standard by pairing a more-efficient envelope with a less-efficient refrigeration system, and vice versa. Also, DOE would not account for the energy use of some components, such as the electricity use of overhead lighting or heat load due to the infiltration of warm air into the walk-in, and would not consider design options whose efficacy depends on the interaction between the different covered components. Including these factors as part of the current rulemaking would likely introduce significant complications with respect to compliance and enforcement while yielding a comparatively small benefit in energy savings. DOE believes, however, that the proposed approach would help ensure that the walk-in components used by manufacturers satisfy some minimal level of energy efficiency and reduce the overall certification and enforcement burden on manufacturers. DOE may reconsider this issue in the future, particularly if accurate computer modeling, such as through an alternative efficiency determination method, becomes possible with respect to predicting the energy usage and efficiency of fully constructed walk-in units. DOE continues to invite comments on the approach presented in this NOPR.

B. Test Procedures and Metrics

While Congress had initially prescribed certain performance standards and test procedures concerning walk-ins as part of the EISA 2007 amendments, Congress also instructed DOE to develop specific test procedures to cover walk-in equipment. DOE subsequently established a test procedure for walk-ins. See 76 FR 21580 (April 15, 2011). See also 76 FR 33631 (June 9, 2011) (final technical corrections). The test procedure lays out an approach that bases compliance on the ability of component manufacturers to produce components that meet the required standards. This approach is also consistent with the framework established by Congress, which set specific energy efficiency performance requirements on a component-level basis. (42 U.S.C. 6313(f)) The approach is discussed more fully below.

1. Panels

In the final test procedure rule for walk-ins, DOE defines ''panel'' as a construction component, excluding doors, used to construct the envelope of the walk-in (*i.e.,* elements that separate the interior refrigerated environment of the walk-in from the exterior). 76 FR 33631 (June 9, 2011). The rule explains that panel manufacturers would test their panels to obtain a thermal transmittance metric—known as U-factor, measured in Btu/h-ft^2-°F—and identifies three types of panels: display panels, floor panels, and non-floor panels. A display panel is defined as a panel that is entirely or partially comprised of glass, a transparent material, or both, and is used for display purposes. Id. It is considered equivalent to a window and the U-factor is determined by NFRC 100–2010–E0A1, ''Procedure for Determining Fenestration Product U-factors.'' 76 FR at 33639. Floor panels are used for walk-in floors, whereas non-floor panels are used for walls and ceilings.

The U-factor for floor and non-floor panels accounts for any structural members internal to the panel and the long-term thermal aging of foam. This value is determined by a three-step process. First, both floor and non-floor panels must be tested using ASTM C1363–10, ''Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.'' The panel's core and edge regions must be used during testing. Second, the panel's core U-factor must be adjusted with a degradation factor to account for foam aging. The degradation factor is determined by EN 13165:2009–02, ''Thermal Insulation Products for Buildings—Factory Made Rigid Polyurethane Foam (PUR) Products—Specification,'' or EN 13164:2009–02, ''Thermal Insulation Products for Buildings—Factory Made Products of Extruded Polystyrene Foam (XPS)—Specification,'' as applicable. Third, the edge and modified core U-factors are then combined to produce the panel's overall U-factor. All industry protocols were incorporated by reference most recently in the test procedure final rule correction. 76 FR 33631.

2. Doors

The walk-in test procedure final rule addressed two door types: display and non-display doors. Within the general context of walk-ins, a door consists of the door panel, glass, framing materials, door plug, mullion, and any other elements that form the door or part of its connection to the wall. DOE defines display doors as doors designed for product movement, display, or both, rather than the passage of persons; a non-display door is interpreted to mean any type of door that is not captured by the definition of a display door. 76 FR at 33631.

The test metric for doors is in terms of energy use, measured in kilowatt-hours per day (kWh/day). The energy use accounts for thermal transmittance through the door and the electricity use

of any electrical components associated with the door. The thermal transmittance is measured by NFRC 100–2010–E0A1, and is converted to energy consumption via conduction losses using an assumed efficiency of the refrigeration system in accordance with the test procedure. See 76 FR at 33636–33637. The electrical energy consumption of the door is calculated by summing each electrical device's individual consumption and accounts for all device controls by applying a ''percent time off'' value to the appropriate device's energy consumption. For any device that is located on the internal face of the door or inside the door, 75 percent of its power is assumed to contribute to an additional heat load on the compressor. Finally, the total energy consumption of the door is found by combining the conduction load, electrical load, and additional compressor load.

3. Refrigeration

The test procedure incorporates an industry test procedure applied to walk-in refrigeration systems: AHRI 1250 (I–P)-2009, ''2009 Standard for Performance Rating of Walk-In Coolers and Freezers'' (''AHRI 1250–2009''). 76 FR at 33631. This procedure applies to unit coolers and condensing units sold together as a matched system, unit coolers and condensing units sold separately, and unit coolers connected to compressor racks or multiplex condensing systems. It also describes methods for measuring the refrigeration capacity, on-cycle electrical energy consumption, off-cycle fan energy, and defrost energy. Standard test conditions, which are different for indoor and outdoor locations and for coolers and freezers, are also specified.

The test procedure includes a calculation methodology to compute an annual walk-in energy factor (AWEF), which is the ratio of heat removed from the envelope to the total energy input of the refrigeration system over a year. AWEF is measured in Btu/W-h and measures the efficiency of a refrigeration system. DOE established a metric based on efficiency, rather than energy use, for describing refrigeration system performance, because a refrigeration system's energy use would be expected to increase based on the size of the walk-in and on the heat load that the walk-in produces. An efficiency-based metric would account for this relationship and would simplify the comparison of refrigeration systems to each other. Therefore, DOE proposes to use an energy conservation standard for refrigeration systems that would be presented in terms of AWEF.

C. Prescriptive Versus Performance Standards

EPCA established standards for certain WICF components, while also directing the Secretary to establish ''performance-based standards,'' which are the subject of this rulemaking. (42 U.S.C. 6313(f)(4)(A)) Some interested parties suggested that DOE establish prescriptive standards for certain components in addition to the performance-based standards that DOE is proposing. NEEA and NPCC stated that DOE should establish a prescriptive (*i.e.,* design) standard for electronically commutated motors. (NEEA and NPCC, No. 0059.1 at p. 7) The Joint Utilities recommended that DOE consider the precedent set by EPCA, as the EPCA provisions include both prescriptive and performance standards, and further recommended that DOE include additional prescriptive requirements for various components of a walk-in as necessary to maximize energy savings, and performance standards for the unit cooler. (Joint Utilities, No. 0061.1 at p. 11) The Joint Utilities also recommended that DOE base new standards using those design requirements already prescribed by Title 20 of California's Code as the baseline when developing a performance standard. (Joint Utilities, No. 0061.1 at p. 13) SCE also referred to the prescriptive standards in Title 20, and suggested that because EPCA already established prescriptive measures, there will be limited additional benefit from performance measures. SCE further recommended that a standard for infiltration should be implemented through ASHRAE 90.1 (SCE, Public Meeting Transcript, No. 0045 at p. 63) The Joint Utilities recommended other specific prescriptive requirements that DOE should implement, including a minimum solar reflective index for the roof of a walk-in located outdoors, adjustable variable speed fan control for unit coolers, and floating head pressure control (a control that allows the pressure of the refrigerant at the compressor exit point to reach an optimal level). (Joint Utilities, No. 0061.1 at pp. 5 and 12; Public Meeting Transcript, No. 0045 at p. 29) The Joint Utilities also asked DOE to examine how controls could be specified in a performance standard. (Joint Utilities, No. 0061.1 at p. 13)

DOE notes that EPCA requires the promulgation of ''performance-based standards'' for walk-ins. That phrase indicates that DOE must set standards based on energy-related performance. See 42 U.S.C. 6313(f)(4). Accordingly, the design requirements suggested by commenters would be inconsistent with this requirement.

D. Certification, Compliance, and Enforcement

Walk-ins consist primarily of panels, display and non-display doors, and a refrigeration system, as described in section III.A. A number of arrangements exist for manufacturing walk-ins. One company may manufacture the panels, purchase the display and/or non-display doors and refrigeration system, assemble the walk-in at the factory, and ship the walk-in to a consumer. Alternatively, the same company may ship the walk-in without a refrigeration system, which is then purchased separately by the consumer and installed on the walk-in. A contractor may purchase all the components from the component manufacturers and assemble the walk-in on-site. Other scenarios may also exist. Given the wide variety of scenarios under which a walk-in is manufactured, it is important to identify an entity or entities responsible for complying with standards and certifying compliance to DOE, and against whom a possible enforcement action could be taken.

During the preliminary analysis public meeting, many interested parties expressed concern about compliance responsibilities and whether those burdens would fall on the envelope and refrigeration manufacturers individually, the installer, or another party. Additionally, the Joint Advocates submitted a comment urging DOE to ensure that the separate system components would be compliant with the energy conservation standards, and stating that each manufacturer should be held accountable for their products (*e.g.,* door manufacturers are responsible for compliance with door standards). (Joint Advocates, No. 0070.1 at pp. 2–3) Craig Industries recommended that the definition of a manufacturer be expanded to include the installer of the unit, because the installer has the ability to ensure that the installed unit meets the energy conservation standards. (Craig Industries, No. 0071.1 at p. 1). Comments on this issue were summarized in the 2011 Certification, Compliance, and Enforcement for Consumer Products and Commercial and Industrial Equipment (referred to hereafter as the CCE final rule), and are not repeated here. 76 FR 12422, 12442–12446 (March 7, 2011).

DOE notes that within the context of today's proposal, the agency is contemplating an approach that would place the primary certification and compliance burden on those entities that manufacture particular key components of a walk-in—that is, the

panels, doors, and refrigeration system. This approach dovetails with that outlined in the recent test procedure final rule. The various requirements that manufacturers would need to follow are detailed in the 2011 final rule noted above regarding manufacturer certification, compliance, and enforcement-related responsibilities. 76 FR 12422. For further details, see 76 FR at 12491.

E. Technological Feasibility

1. General

In each standards rulemaking, DOE conducts a screening analysis, which it bases on information gathered on all current technology options and prototype designs that could improve the efficiency of the products or equipment that are the subject of the rulemaking. As the first step in such analysis, DOE develops a list of design options for consideration in consultation with manufacturers, design engineers, and other interested parties. DOE then determines which of these means for improving efficiency are technologically feasible. DOE considers technologies incorporated in commercial products or in working prototypes to be technologically feasible. 10 CFR 430, subpart C, appendix A, section 4(a)(4)(i) Although DOE considers technologies that are proprietary, it will not consider efficiency levels that can only be reached through the use of proprietary technologies (*i.e.,* a unique pathway), as it could allow a single manufacturer to monopolize the market.

Once DOE has determined that particular design options are technologically feasible, it generally evaluates each of these design options in light of the following additional screening criteria: (1) Practicability to manufacture, install, or service; (2) adverse impacts on product utility or availability; and (3) adverse impacts on health or safety. 10 CFR part 430, subpart C, appendix A, section 4(a)(4)(ii)-(iv) Section IV.B of this notice discusses the results of the screening analyses for walk-in coolers and freezers. Specifically, it presents the designs DOE considered, those it screened out, and those that are the basis for the TSLs in this rulemaking. For further details on the screening analysis for this rulemaking, see chapter 4 of the TSD.

2. Maximum Technologically Feasible Levels

When DOE proposes to adopt a new or amended or new energy conservation standard for a type or class of covered equipment such as walk-ins, it determines the maximum improvement in energy efficiency that is technologically feasible for such equipment. Accordingly, DOE determined the maximum technologically feasible (max-tech) improvements in energy efficiency for walk-ins by applying those design parameters that passed the screening analysis to the engineering analysis that DOE prepared as part of the preliminary analysis.

In a comment on the max-tech levels in the preliminary analysis, AHRI commented that max-tech efficiency levels would be achieved only by a few units, and it requested that DOE demonstrate that max-tech levels can be achieved by commonly used products. (AHRI, No. 0055.1 at p. 3)

As indicated previously, whether efficiency levels exist or can be achieved in commonly used products does not determine whether they are max-tech levels. DOE considers technologies to be technologically feasible if they are incorporated in any commercially available equipment or working prototypes. A maximum technologically feasible level results from the combination of design options that result in the highest efficiency level for an equipment class, with such design options consisting of technologies already incorporated in commercial products or working prototypes. DOE notes that it re-evaluated the efficiency levels, including the max-tech levels, when it updated its results for this NOPR. See chapter 5 of the NOPR TSD for the results of the analysis.

For panels, non-display doors, display doors, and refrigeration systems, the max-tech efficiency levels DOE has identified represent products with the most efficient design options available on the market, or previously offered for sale, in the given equipment class. No products at higher efficiencies are available or have been in the past, and DOE is not aware of any working prototype designs that would allow manufacturers to achieve higher efficiencies. Table III–2, Table III–3, Table III–4, and Table III–5 list the max-tech levels for panels, display doors, non-display doors, and refrigeration systems, respectively. (See section IV.A.3 for a description of the equipment classes.)

For structural cooler and freezer panels, the max-tech level is represented by a single value for U-factor. For all other TSLs (and for all floor panel levels including the max-tech level), the level is represented by a polynomial equation expressing the U-factor in terms of certain panel dimensions, but the max tech level does not result in a polynomial equation because the U-factor does not vary with the size of the panel. (See section V.A.2 for a list of equations for all TSLs.) At max-tech, panels are designed without structural members, making the panel uniformly comprised of hybrid insulation. See section IV.C.5 and chapter 5 of the TSD for the list of technologies included in max-tech equipment.

Table III-2 Max-Tech Levels for Panels

Equipment Class	Equations for Maximum U-Factor (Btu/h-ft^2-°F)*
Structural Panel, Medium Temperature	0.011
Structural Panel, Low Temperature	0.011
Floor Panel, Low Temperature	$-0.021\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.041\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.011$

*$A_{\text{fp edge}}$ and $A_{\text{fp core}}$ represent the edge and core surface area of the floor panel, respectively.

TABLE III–3—MAX-TECH LEVELS FOR DISPLAY DOORS

Equipment class	Equations for maximum energy consumption (kWh/day) *
Display Door, Medium Temperature	$0.0080 \times A_{dd} + 0.29$
Display Door, Low Temperature	$0.11 \times A_{dd} + 0.32$

* A_{dd} represents the surface area of the display door.

TABLE III–4—MAX-TECH LEVELS FOR NON-DISPLAY DOORS

Equipment class	Equations for maximum energy consumption (kWh/day) *
Passage Door, Medium Temperature	$0.00093 \times A_{nd} + 0.0083$
Passage Door, Low Temperature	$0.13 \times A_{nd} + 3.9$
Freight Door, Medium Temperature	$0.00092 \times A_{nd} + 0.13$
Freight Door, Low Temperature	$0.094 \times A_{nd} + 5.2$

* A_{nd} represents the surface area of the non-display door.

TABLE III–5—MAX-TECH LEVELS FOR REFRIGERATION SYSTEMS

Equipment class	Equations for minimum AWEF (Btu/W-h) *
Dedicated Condensing, Medium Temperature, Indoor System, < 9,000 Btu/h Capacity	$2.63 \times 10^{-4} \times Q + 4.53$
Dedicated Condensing, Medium Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	6.90
Dedicated Condensing, Medium Temperature, Outdoor System, < 9,000 Btu/h Capacity	$9.23 \times 10^{-4} \times Q + 3.90$
Dedicated Condensing, Medium Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	12.21
Dedicated Condensing, Low Temperature, Indoor System, < 9,000 Btu/h Capacity	$1.93 \times 10^{-4} \times Q + 1.93$
Dedicated Condensing, Low Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	3.67
Dedicated Condensing, Low Temperature, Outdoor System, < 9,000 Btu/h Capacity	$4.53 \times 10^{-4} \times Q + 2.17$
Dedicated Condensing, Low Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	6.25
Multiplex Condensing, Medium Temperature	10.82
Multiplex Condensing, Low Temperature	5.91

* Q represents the system gross capacity as calculated in AHRI 1250.

F. Energy Savings

1. Determination of Savings

For each TSL, DOE projected energy savings from the products that are the subject of this rulemaking purchased in the 30-year period that begins in the year of compliance with new standards (2017–2046). The savings are measured over the entire lifetime of products purchased in the 30-year period.[13] DOE quantified the energy savings attributable to each TSL as the difference in energy consumption between each standards case and the base case. The base case represents a projection of energy consumption in the absence of amended mandatory efficiency standards and considers market forces and policies that affect demand for more efficient products.

DOE used its national impact analysis (NIA) spreadsheet model to estimate energy savings from amended standards for the products that are the subject of this rulemaking. The NIA spreadsheet model (described in section IV.G of this notice and chapter 10 of the TSD) calculates energy savings in site energy, which is the energy directly consumed by products at the locations where they are used. For electricity, DOE reports national energy savings in terms of the savings in the energy that is used to generate and transmit the site electricity. To calculate this quantity, DOE derives annual conversion factors from the model used to prepare the Energy Information Administration's (EIA) *Annual Energy Outlook* (*AEO*).

DOE has begun to also estimate full-fuel-cycle (FFC) energy savings. 76 FR 51282 (Aug. 18, 2011), as amended at 77 FR 49701 (August 17, 2012). The FFC metric includes the energy consumed in extracting, processing, and transporting primary fuels (i.e., coal, natural gas, petroleum fuels), and thus presents a more complete picture of the impacts of energy efficiency standards. DOE's approach is based on calculation of an FFC multiplier for each of the energy types used by covered products. For more information on FFC energy savings, see sections IV.G.3 and IV.L and appendix 10G of the TSD.

2. Significance of Savings

DOE may not adopt a standard that would not result in significant additional energy savings. While the term ''significant'' is not defined in the Act, the U.S. Circuit Court of Appeals for the District of Columbia in *Natural Resources Defense Council* v. *Herrington,* 768 F.2d 1355, 1373 (DC Cir. 1985), indicated that Congress intended significant energy savings to be savings that were not ''genuinely trivial.'' The estimated energy savings in the analysis period for the trial standard levels considered in this rulemaking range from 4.28 to 6.37 quadrillion Btu (quads), an amount DOE considers significant.

[13] In the past DOE presented energy savings results for only the 30-year period that begins in the year of compliance. In the calculation of economic impacts, however, DOE considered operating cost savings measured over the entire lifetime of products purchased in the 30-year period. DOE has chosen to modify its presentation of national energy savings to be consistent with the approach used for its national economic analysis.

G. Economic Justification

1. Specific Criteria

As discussed in section II.A, EPCA provides seven factors to be evaluated in determining whether a potential energy conservation standard is economically justified. The following sections generally discuss how DOE addresses each of those seven factors in this rulemaking. For further details and the results of DOE's analyses pertaining to economic justification, see sections IV and V of today's notice.

a. Economic Impact on Manufacturers and Consumers

In determining the impacts of an amended standard on manufacturers, DOE first uses an annual cash-flow approach to determine the quantitative impacts. This step includes both a short-term assessment—based on the cost and capital requirements during the period between when a regulation is issued and when entities must comply with the regulation—and a long-term assessment over a 30-year period. The industry-wide impacts analyzed include industry net present value (INPV), which values the industry on the basis of expected future cash flows; cash flows by year; changes in revenue and income; and other measures of impact, as appropriate. Second, DOE analyzes and reports the impacts on different types of manufacturers, including impacts on small manufacturers. Third, DOE considers the impact of standards on domestic manufacturer employment and manufacturing capacity, as well as the potential for standards to result in plant closures and loss of capital investment. Finally, DOE takes into account cumulative impacts of various DOE regulations and other regulatory requirements on manufacturers.

For individual consumers, measures of economic impact include the changes in LCC and the PBP associated with new or amended standards. The LCC, which is also separately specified as one of the seven factors to be considered in determining the economic justification for a new or amended standard, is discussed in the following section. For consumers in the aggregate, DOE also calculates the net present value from a national perspective of the economic impacts on consumers over the forecast period used in a particular rulemaking. For the results of DOE's analyses related to the economic impact on consumers, see section V.B.1 of this notice and chapters 8 and 11 of the TSD. For the results of DOE's analyses related to the economic impact on manufacturers, see section V.B.2 of this notice and chapter 12 of the TSD.

b. Life-Cycle Costs

The LCC is the sum of the purchase price of equipment (including the cost of its installation) and the operating expense (including energy and maintenance and repair expenditures) discounted over the lifetime of the equipment. The LCC savings for the considered efficiency levels are calculated relative to a base case that reflects likely trends in the absence of new standards. The LCC analysis requires a variety of inputs, such as equipment prices, equipment energy consumption, energy prices, maintenance and repair costs, equipment lifetime, and consumer discount rates. DOE assumes in its analysis that consumers purchase the equipment in the year in which compliance with the new standard is required.

To account for uncertainty and variability in specific inputs, such as equipment lifetime and discount rate, DOE uses a distribution of values with probabilities attached to each value. A distinct advantage of this approach is that DOE can identify the percentage of consumers estimated to receive LCC savings or experience an LCC increase. In addition to identifying ranges of impacts, DOE evaluates the LCC impacts of potential standards on identifiable subgroups of consumers that may be disproportionately affected by a new national standard. For the results of DOE's analyses related to the life-cycle costs of equipment, see section V.B.1.a of this notice and chapter 8 of the TSD.

c. Energy Savings

While significant conservation of energy is a separate statutory requirement for imposing an energy conservation standard, EPCA requires DOE, in determining the economic justification of a standard, to consider the total projected energy savings that are expected to result directly from the standard. DOE uses the NIA spreadsheet results in its consideration of total projected savings. For the results of DOE's analyses related to the potential energy savings, see section V.B.3.a of this notice and chapter 10 of the TSD.

d. Lessening of Utility or Performance of Products

In establishing classes of equipment, and in evaluating design options and the impact of potential standard levels, DOE seeks to develop standards that would not lessen the utility or performance of the equipment under consideration. None of the TSLs presented in today's NOPR would reduce the utility or performance of the equipment considered in the rulemaking. During the screening analysis, DOE eliminated from consideration any technology that would adversely impact consumer utility. For the results of DOE's analyses related to the potential impact of new standards on equipment utility and performance, see section IV.B of this notice and chapter 4 of the TSD.

e. Impact of Any Lessening of Competition

EPCA directs DOE to consider the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of a standard. It also directs the Attorney General to determine the impact, if any, of any lessening of competition likely to result from a proposed standard and to transmit such determination to the Secretary within 60 days of the publication of a proposed rule, together with an analysis of the nature and extent of the impact. DOE will transmit a copy of today's proposed rule to the Attorney General with a request that the Department of Justice (DOJ) provide its determination on this issue. DOE will address the Attorney General's determination in the final rule.

f. Need of the Nation To Conserve Energy

The energy savings from the proposed standards are likely to provide improvements to the security and reliability of the nation's energy system. Reductions in the demand for electricity also may result in reduced costs for maintaining the reliability of the nation's electricity system. DOE conducts a utility impact analysis to estimate how standards may affect the nation's needed power generation capacity. The utility impact analysis is contained in chapter 14 of the TSD.

The proposed standards also are likely to result in environmental benefits in the form of reduced emissions of air pollutants and greenhouse gases associated with energy production. DOE reports the emissions impacts from today's standards, and from each TSL it considered, in section V.B.6 of this notice and chapter 15 of the TSD. DOE also reports estimates of the economic value of emissions reductions resulting from the considered TSLs.

g. Other Factors

EPCA allows the Secretary, in determining whether a standard is economically justified, to consider any other factors that the Secretary deems to be relevant. For the results of DOE's

analyses related to other factors, see section V.B.7 of this notice.

2. Rebuttable Presumption

As set forth in 42 U.S.C. 6295(o)(2)(B)(iii), EPCA provides for a rebuttable presumption that an energy conservation standard is economically justified if the additional cost to the consumer of equipment that meets the standard level is less than three times the value of the first-year energy (and, as applicable, water) savings resulting from the standard, as calculated under the applicable DOE test procedure. DOE's LCC and PBP analyses generate values which can be used to calculate the payback period for consumers of products or equipment that meet the proposed standards. These analyses include, but are not limited to, the three-year payback period contemplated under the rebuttable presumption test. However, DOE routinely conducts a full economic analysis that considers the full range of impacts to the consumer, manufacturer, nation, and environment, as required under 42 U.S.C. 6295(o)(2)(B)(i). The results of this analysis serve as the basis for DOE to evaluate the economic justification for a potential standard level (thereby supporting or rebutting the results of any preliminary determination of economic justification). The rebuttable presumption payback calculation is discussed in section IV.F.12 of this NOPR and chapter 8 of the TSD.

IV. Methodology and Discussion

A. Market and Technology Assessment

When beginning an energy conservation standards rulemaking, DOE develops information that provides an overall picture of the market for the products concerned, including the purpose of the products, the industry structure, and market characteristics. This activity includes both quantitative and qualitative assessments based primarily on publicly-available information (*e.g.,* manufacturer specification sheets and industry publications) and data submitted by manufacturers, trade associations, and other stakeholders. The subjects addressed in the market and technology assessment for this rulemaking include: (1) Quantities and types of products sold and offered for sale; (2) retail market trends; (3) products covered by the rulemaking; (4) equipment classes; (5) manufacturers; (6) regulatory requirements and non-regulatory programs (such as rebate programs and tax credits); and (7) technologies that could improve the energy efficiency of the products under examination. DOE researched manufacturers of panels, display doors, non-display doors, and refrigeration equipment. DOE also identified and characterized small business manufacturers of these components. See chapter 3 of the TSD for further discussion of the market and technology assessment.

In the preliminary TSD, DOE presented market performance data. Typically, DOE's analysis of market data uses catalog and performance data to determine the number of products on the market at varying efficiency levels. However, WICF systems and equipment have not previously been rated for efficiency by manufacturers, nor has an efficiency metric been established for this equipment. Based on the available data, DOE presented a sample of equipment at various sizes in the preliminary TSD and estimated the energy consumption of the equipment using the preliminary engineering spreadsheet. For refrigeration equipment in particular, DOE found that, as expected, the relationship between capacity and energy consumption was roughly linear.

In a comment on the market performance data DOE presented, Manitowoc expressed concern that DOE's use of linear trends to establish the relationship between energy consumption and net capacity will lead to an overestimation of the potential benefits of refrigeration system standards. (Manitowoc, No. 0056.1 at p. 2)

DOE presented the market performance data to illustrate its understanding of the market. In response to Manitowoc's concern, DOE notes that the benefits of the rule are not derived from the estimates of market performance data but are determined from the LCC analysis and NIA. DOE seeks market performance data to help inform DOE's analysis.

1. Definitions Related to Walk-In Coolers and Freezers

DOE proposes to amend the definition of display door and to adopt definitions for passage and freight door in order to clarify the boundaries separating these equipment classes. The display door definition was modified to permit transparent doors used for the passage of people to be categorized as display doors rather than as non-display passage doors. DOE is proposing to define transparent passage doors as a type of display door because transparent passage doors are generally constructed in the same manner and with the same materials as transparent reach-in doors. DOE proposes to include definitions for non-display passage and freight doors in order to clarify the distinction between the two types of doors. Non-display passage doors are typically smaller than freight doors and are designed for passage of people and small machines, whereas non-display freight doors are larger than passage doors and designed for the passage of large machines like forklifts.

a. Display Doors

As described in section III.B of this notice, DOE established a definition for display door in the test procedure. 76 FR 33631 (June 9, 2011). DOE is now proposing to amend this definition to include all doors that are comprised of 75 percent or more glass or other transparent material. This amendment is intended to classify passage doors that are mostly comprised of glass as display doors because the utility and construction of glass passage doors more closely resembles that of a display door. DOE proposes to define a display door as one that ''(1) is designed for product display; or (2) has 75 percent or more of its surface area comprised of glass or another transparent material.'' DOE requests comment on this proposed definition.

b. Freight Doors

DOE is proposing to separate non-display doors into two equipment classes, passage doors and freight doors. DOE proposes to define freight doors in order to clarify the distinction between these two equipment classes and remove any ambiguity about which energy standards apply to a given door. The two types of doors are constructed differently—for example, freight doors tend to have more structural support because they are bulkier—and warrant different standards for each type. DOE is proposing a definition of freight doors that would account for the fact that these doors are typically larger than passage doors and are used to allow large machines, like forklifts, into walk-ins. Specifically, DOE proposes to define a freight door to mean ''a door that is not a display door and is equal to or larger than 4 feet wide and 8 feet tall.'' DOE based these proposed dimensions on the standard size of a walk-in panel, which is 4 feet wide by 8 feet tall. In DOE's estimation doors used for the passage of people small machines would be less than the standard size of a walk-in panel and therefore all other doors would be freight doors. DOE requests comment on its proposed definition.

c. Passage Doors

DOE proposes a definition of passage doors to differentiate passage doors from

freight doors and display doors. Passage doors are mostly intended for the passage of people and small machines like hand carts and not for product display. DOE proposes to define this term to mean ''a door that is not a freight or display door.'' DOE requests comment on this proposed definition.

2. Equipment Included in This Rulemaking

a. Panels and Doors

As mentioned in section III.B.1, DOE identified three types of panels used in the walk-in industry: Display panels, floor panels, and non-floor panels. Based on its research, DOE determined that display panels, typically found in beer caves (walk-ins used for the display and storage of beer or other alcoholic beverages often found in a supermarket) make up a small percentage of all panels currently present in the market. Therefore, because of the extremely limited energy savings potential currently projected to result from amending the requirements that these panels must meet, DOE is not proposing standards for walk-in display panels in this NOPR. Display panels, however, must still follow all applicable design standards already prescribed by EPCA, as discussed in section II.B.1 of this notice.

DOE is also not proposing to require the installation of walk-in cooler floor panels. DOE did not consider including walk-in cooler floor panels in its analysis because of their complex nature. Through manufacturer interviews and market research, DOE determined that, unlike walk-in freezers, the majority of walk-in coolers are made with concrete floors and do not use insulated floor panels. The entity that installs the cooler floor is considered the floor's manufacturer and is responsible for testing and complying with a walk-in cooler floor standard. If DOE were to require that all walk-in coolers to be equipped with floor panels, the onus of complying with this requirement would likely fall on entities that do not specialize in constructing walk-in coolers, and the accompanying burden in using these components and certifying compliance with the appropriate standards would likely be costly and difficult for that entity to fulfill. Therefore, at this time, it is DOE's view that requiring the use of floor panels—along with the accompanying compliance costs—would present an undue burden to those entities that would be responsible for meeting these requirements. For these reasons, DOE is not proposing to require walk-in coolers to have floor panels, nor is DOE proposing energy efficiency standards for cooler floor panels. (DOE is, however, proposing energy efficiency standards for walk-in *freezer* floor panels and notes that EPCA requires floor insulation of at least R–28 for walk-in *freezers.* (42 U.S.C. 6313(f)(1)(D)).)

DOE also identified two types of doors in the walk-in market, display doors and non-display doors, which are discussed in section III.B.2 of this NOPR. All types of doors will be subject to the performance standards proposed in this rulemaking.

b. Refrigeration System

DOE defines the refrigeration system of a walk-in as the mechanism (including all controls and other components integral to the system's operations) used to create the refrigerated environment in the interior of the walk-in cooler and freezer, consisting of either (1) a packaged system where the unit cooler and condensing unit are integrated into a single piece of equipment, (2) a split system with separate unit cooler and condensing unit sections, or (3) a unit cooler that is connected to a multiplex condensing system. 76 FR at 33631.

DOE based its preliminary results used in today's proposal on an analysis of storage coolers and freezers. DOE did not analyze blast freezer walk-ins, which are designed to quickly freeze food and then store it at a specified holding temperature. American Panel commented that blast freezer performance differs from storage freezer performance due to the large product loads experienced with this specialized equipment. (American Panel, No. 0048.1 at p. 4) Heatcraft added that blast freezer refrigeration systems' energy consumption would be higher than that of storage freezers and that they require wider fin spacing because of a higher rate of frost accumulation. (Heatcraft, No. 0058.1 at p. 1)

DOE agrees with American Panel and Heatcraft that blast freezer refrigeration systems have different energy characteristics from storage freezers, but questions whether they would necessarily have a lower rated efficiency. DOE is not proposing to include blast freezers in this rulemaking analysis because they make up a small percentage of walk-ins currently present in the market. DOE requests comment on whether blast freezer refrigeration systems would have difficulty complying with DOE's refrigeration efficiency standards and, if so, to direct DOE to (and supply it with) any test procedure data supporting this conclusion. DOE proposes to apply the same standards to blast freezer refrigeration systems as to storage freezer refrigeration systems, unless DOE finds that blast freezer refrigeration systems would have difficulty complying with DOE's standards. Otherwise, DOE will consider excluding blast freezers from coverage under this rulemaking, although they would still have to comply with the already statutorily-prescribed standards in EPCA.

Regarding the particular refrigerant to be used in the analysis, DOE analyzed refrigeration equipment using R404A, a hydrofluorocarbon (HFC) refrigerant blend, in the preliminary analysis. Heatcraft supported DOE's approach to use only HFC refrigerants in the analysis, but also suggested that DOE consider lower global warming potential (GWP) refrigerants—such as R134a, R407A, or R407C—in the analyses as well because of shifts in the marketplace towards these products, even though these refrigerants may have lower efficiencies. (Heatcraft, No. 0069.1 at p. 3)

DOE used R404A in its analysis for this NOPR because it is widely used currently in the walk-in industry. DOE appreciates Heatcraft's suggestion to analyze alternative refrigerants, especially those with a lower GWPs given the interest by many manufacturers to use these alternatives, and requests comment on the extent of the use or likely phase-in of lower GWP refrigerants and asks manufacturers to submit data related to the ability of the equipment (either existing or redesigned) using these refrigerants to meet the proposed standard, as well as the cost of such equipment.

3. Equipment Classes

a. Panels and Doors

In the preliminary analysis, DOE proposed to divide the envelope into two separate equipment classes: display and non-display walk-ins (that is, walk-ins with and without glass). Display walk-ins are walk-ins that have doors for display purposes, are typically made with glass, and are inherently less efficient than walk-ins without glass because glass is not as insulative as the insulation material used in non-display walk-ins (typically polyurethane or polystyrene).

Interested parties commented on the need to separate display and non-display walk-ins into two different equipment classes. Nor-Lake and AHRI agreed with the equipment classes proposed by DOE, and AHRI commented that the equipment classes represent the most common walk-in

configurations. (Nor-Lake, No. 0049.1 at p. 1; AHRI, No. 0055.1 at p. 2) Manitowoc stated that classification of envelopes into storage and display types is appropriate as it may allow for different performance levels for certain components. (Manitowoc, No. 0056.1 at p. 2) However, CrownTonka contended that it was unnecessary to have two equipment classes for display and non-display walk-ins and that separate classes for coolers and freezers are adequate. (CrownTonka, No. 0057.1 at p. 1) ASAP and SCE opined that one equipment class is sufficient and that the difference between non-display and display doors could be accounted for through a weighted average of the opaque and glass surface areas. (ASAP, Public Meeting Transcript, No. 0045 at p. 70; SCE, Public Meeting Transcript, No. 0045 at p. 79) However, NEAA, NPCC and Manitowoc countered that there should not be a single metric for both display and non-display doors because it would not account for the unique utility offered by display walk-ins (*i.e.,* permitting the display of stored items). (NEAA and NPCC, Public Meeting Transcript, No. 0045 at p. 76; Manitowoc, Public Meeting Transcript, No. 0045 at p. 78) NEAA and NPCC stated that, if DOE were to separate display and non-display walk-ins into two different classes, DOE should carefully define the boundary between the two classes. (NEAA and NPCC, Public Meeting Transcript, No. 0045 at p. 77) NEAA and NPCC also suggested that, as an alternative to having one equipment class for display and non-display walk-ins with a single performance metric, DOE should move to component level-based classes with separate performance metrics. (NEAA and NPCC, Public Meeting Transcript, No. 0045 at p. 76)

Interested parties also submitted comments about the names of the equipment classes. NEAA and NPCC stated that if DOE has two separate equipment classes for display and non-display walk-ins, DOE should carefully define the boundary between the two classes. (NEAA and NPCC, Public Meeting Transcript, No. 0045 at p. 77) Kysor stated that the class names DOE suggested were confusing and offered an alternative—''coolers with glass doors'' instead of ''display coolers''—to help clarify the difference between the two separate equipment classes. (Kysor, Public Meeting Transcript, No. 0045 at p. 78)

In light of the component level standards described in section III.A, DOE proposes to create separate equipment classes for panels, display doors, and non-display doors. These different items comprise the main components of a walk-in envelope. DOE proposes separate classes for panels, display doors, and non-display doors because each component type has a different utility to the consumer and possesses different energy use characteristics.

In the preliminary analysis, DOE also considered the possibility of creating separate classes for walk-in coolers and walk-in freezers because EPCA specifically divides walk-in equipment into coolers (above 32 °F) and freezers (at or below 32 °F), (42 U.S.C. 6311(20)), and prescribes unique design requirements for each. (42 U.S.C. 6313(f)(1)(C)–(D)(3)) DOE has continued to apply this approach in its analysis.

Panels

DOE has placed panels into two equipment classes: Freezer floor panels and non-floor panels (also called structural panels). DOE understands that freezer floor panels and structural panels serve two different utilities. Freezer floor panels, which are panels used to construct the floor of a walk-in, must often support the load of small machines like hand carts and pallet jacks on their horizontal faces. Non-floor panels or structural panels, which include panels used to construct the ceiling or wall of a walk-in, provide structure for the walk-in. Because of their different utilities, the two classes of panels are constructed differently from each other and use different amounts of framing material, which affects the panels' energy consumption.

Structural panels are further divided into two more classes based on temperature—*i.e.,* cooler versus freezer panels. Cooler structural panels are rated with their internal faces exposed to a temperature of 35 °F, as called for in the test procedure final rule. Freezer structural panels are used in walk-in freezers and rated with its internal face exposed to a temperature of −10 °F, as required by the test procedure final rule. 76 FR at 21606; 10 CFR 431.303. EPCA also requires walk-in freezer panels to have a higher R-value than walk-in cooler panels. These differences result in different amounts of insulating foam between these panel types and affect the panel's U-value.

Doors

DOE has distinguished between two different door types used in walk-in coolers and freezers: Display doors and non-display doors. DOE proposed separate classes for display doors and non-display doors to retain consistency with the dual approach laid out by EPCA for these walk-in components. (42 U.S.C. 6313(f)(1)(C) and (3)) Non-display doors and display doors also serve separate purposes in a walk-in. Display doors contain mainly glass in order to display products or objects located inside the walk-in. Non-display doors function as passage and freight doors and are mainly used to allow people and products to be moved into and out of the walk-in. Because of their different utilities, display and non-display doors are made up of different material. Display doors are made of glass or other transparent material, while non-display doors are made of highly insulative materials like polyurethane. The different materials found in display and non-display doors significantly affect their energy consumption.

DOE divided display doors into two equipment classes based on temperature differences: cooler and freezer display doors. Cooler display doors and freezer display doors are exposed to different internal temperature conditions, which affect the total energy consumption of the doors. In the test procedure final rule, DOE established an internal rating temperature of 35 °F for walk-in cooler display doors and −10 °F for walk-in freezer display doors. 76 FR at 21606; 10 CFR Part 431, Subpart R, Appendix A, Section 5.3.

DOE also separated non-display doors into two equipment classes, passage and freight doors. Passage doors are typically smaller doors and mostly used as a means of access for people and small machines, like hand carts. Freight doors typically are larger doors used to allow access for larger machines, like forklifts, into walk-ins. The different shape and size of passage and freight doors affects the energy consumption of the doors. Both passage and freight doors are also separated into cooler and freezer classes because, as explained for display doors, cooler and freezer doors are rated at different temperature conditions. A different rating temperature impacts the door's energy consumption.

In the preliminary analysis, DOE did not consider outdoor envelopes as a separate equipment class. Walk-ins located outdoors have very similar features to walk-ins located indoors, and DOE could not identify any additional design options that improved the energy consumption only of outdoor walk-ins. The Joint Utilities, NEEA and NPCC, CrownTonka, Nor-Lake, and Hill Phoenix stated that DOE should differentiate equipment classes by their external environment. (Joint Utilities, No. 0061.1 at p. 5; NEEA and NPCC, No. 0059.1 at p. 6; CrownTonka, Public Meeting Transcript, No. 0045 at p. 81;

Nor-Lake, No. 0049.1 at p. 2; Hill Phoenix, No. 0066.1 at p. 2) The Joint Utilities requested that DOE evaluate cost-effective insulation levels for outdoor walk-ins, and stated that there would be a loss in energy savings if DOE did not consider region-specific insulation levels. (Joint Utilities, Public Meeting Transcript, No. 0045 at pp. 80 and 82) Nor-Lake contested DOE's claim that walk-ins designed as outdoor units include no additional features that impact energy consumption, stating that the ambient temperature and product load will change the energy consumption for both the indoor and outdoor units. (Nor-Lake, No. 0049.1 at p.2) Hill Phoenix recommended a separate equipment class for outdoor walk-ins because outdoor walk-ins must have thicker panels to withstand environmental conditions. (Hill Phoenix, No. 0066.1 at p. 2) American Panel observed that a walk-in located outdoors has an added benefit in that no building space was constructed to house the walk-in, which is a significant energy savings not considered in the preliminary analysis. (American Panel, No. 0048.1 at p. 3)

Some commenters described how DOE could include equipment classes that capture the external conditions. SCE suggested that DOE set a series of different conditions by the location of the wall such as an outdoor, indoor, or demising wall (*i.e.,* a dividing wall to separate spaces) between a cooler and a freezer space. (SCE, Public Meeting Transcript, No. 0045 at pp. 80 and 82–83) NEEA and NPCC recommended changing the equipment classes to indoor cooler, indoor freezer, outdoor cooler, and outdoor freezer. (NEEA and NPCC, No. 0059.1 at p. 6)

Other interested parties agreed with DOE's assertion that it was unnecessary to consider outdoor walk-ins as a separate equipment class. Kysor explained that the envelope would be designed for whatever ambient conditions it may be subjected to, and that adding additional performance requirements would be unnecessary. (Kysor, Public Meeting Transcript, No. 0045 at p. 80) Manitowoc stated that there should not be any classification based on external environments as there are times when the envelope is exposed to both internal and external conditions. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 82)

DOE is not proposing to include any panel or door equipment class that accounts for the different external environmental conditions that a walk-in could experience in real world applications. DOE does not find outdoor and indoor walk-in envelope components to have distinct utilities. Components for outdoor walk-ins and indoor walk-ins are generally constructed with the same design and materials and serve the same purpose. In response to Nor-Lake's comment about DOE's assumption about additional features, DOE clarifies that while the difference in outdoor temperatures affects the real world energy consumption of the walk-in envelope, DOE was referring to design features, such as different types of insulation, which differ from the design options found on indoor walk-ins and improve the energy efficiency of the outdoor walk-in. As to Hill Phoenix's comment that a panel facing external conditions requires more insulation, DOE notes that panels with thicker insulation already surpass the baseline panel specifications, which would make it easier for these types of panels to meet the standards in today's proposal.

Hill Phoenix also recommended that DOE divide envelopes into factory assembled step-in style walk-ins and larger construction-based walk-ins. (Hill Phoenix, No. 0066.1 at p. 1) Because it is not proposing standards for walk-in envelopes, but rather for the panels and doors that are components of the envelopes, DOE has not adopted Hill Phoenix's recommendation in today's proposal. DOE has, however, separated into different equipment classes the components typically found in factory-assembled walk-ins, such as passage doors and floor panels, and those components found in large construction-based walk-ins, such as freight doors. DOE believes this approach will achieve the objective of the Hill Phoenix recommendation, namely that the proposed standards reflect the different energy use characteristics of factory-assembled and construction-based walk-ins.

Table IV–1 lists the equipment classes DOE proposes to create in this NOPR. In the table below, medium temperature refers to cooler equipment and low temperature refers to freezer equipment. The column entitled ''Class'' lists the codes that will be used to abbreviate each equipment class, and will be used throughout the NOPR.

TABLE IV–1—EQUIPMENT CLASSES FOR PANELS AND DOORS

Product	Temperature	Class
Structural Panel.	Medium	SP.M
	Low	SP.L
Floor Panel	Low	FP.L
Display Door	Medium	DD.M
	Low	DD.L
Passage Door	Medium	PD.M
	Low	PD.L
Freight Door	Medium	FD.M
	Low	FD.L

b. Refrigeration Systems

In the preliminary analysis, DOE considered dividing walk-in refrigeration systems into six equipment classes based on key physical characteristics that affect equipment efficiency: (1) The type of condensing unit (*i.e.,* whether the system has a dedicated condensing unit or is connected to a multiplex system), (2) the operating temperature, and (3) the location of the walk-in (*i.e.,* indoors or outdoors). In this NOPR, DOE also proposes to differentiate refrigeration system classes based on capacity. DOE discusses the four proposed class differentiations below.

Type of Condensing Unit

Due to the significant impact of the condensing unit on the overall energy consumption of the walk-in (as much as 90 percent), the preliminary analysis differentiated between two different condensing unit types: dedicated condensing systems and multiplex condensing systems. In a dedicated condensing system, only one condensing unit (consisting of one or more compressors and condensers) serves a single walk-in. A multiplex condensing system consists of a rack of compressors usually located in a mechanical room, a large condenser or condensers usually located on the roof, and several unit coolers or evaporators belonging to various types of refrigeration equipment, including walk-ins. The only part of a multiplex condensing system that would be covered under the proposed standard would be a unit cooler in a walk-in—a ''unit cooler connected to a multiplex condensing system.'' The compressor and condenser of a multiplex system would not be covered under the walk-in standard because they serve equipment other than walk-ins. Furthermore, DOE would be unable to attribute the portion of energy use related to only the walk-in, at the point of manufacture of the compressor and condenser of the multiplex system.

DOE received several comments about the classification of condensing types. AHRI, Nor-Lake and Manitowoc agreed with DOE's equipment classes proposed in the preliminary analysis, while the Joint Utilities suggested redesignating

the multiplex and dedicated equipment classes as remote and self-contained, respectively. (AHRI, Public Meeting Transcript, No. 0045 at p. 74, Nor-Lake, No. 0049.1 at p. 1, Manitowoc, No. 0056 at p. 2, Manitowoc, Public Meeting Transcript, No. 0045 at p. 73, Joint Utilities, Public Meeting Transcript, No. 0045 at p. 71) The Joint Utilities suggested regulating condensing units in a manner similar to that used by DOE for commercial refrigeration equipment, which, in their view, would result in coverage of most of the condensing units serving the walk-in industry. (Joint Utilities, No. 0061.1 at p. 11, 12) The Joint Advocates suggested that DOE conduct a separate rulemaking for condensing units. (Joint Advocates, No. 0070.1 at p. 3) They added that DOE should reduce the number of refrigeration types to self-contained and unit coolers only, while the Joint Utilities recommended against including remote condensing units as part of this rulemaking. (Joint Advocates, No. 0070.1 at p. 3, Joint Utilities, No. 0045 at p. 22)

DOE believes the refrigeration systems covered by the two classes of equipment, dedicated condensing and multiplex condensing, accurately represent the range of refrigeration equipment used in walk-in coolers and freezers. Although the proposed classes differ from the classes designated in the commercial refrigeration equipment rulemaking, there are key differences between commercial refrigeration equipment refrigeration systems and walk-in refrigeration systems. The Joint Advocates and Joint Utilities refer to two types of refrigeration systems commonly used with commercial refrigeration equipment: ''self-contained'' (meaning the entire refrigeration system is built into the case) and ''remote condensing'' (meaning the unit cooler is built into the case, but the whole case is connected to a central system of compressors and condensers, called a ''rack'' or ''multiplex condensing system'', connected to most or all of the refrigeration units in a building). ''Remote condensing'', however, can also refer to a configuration in which the unit cooler is connected to a dedicated (*i.e.,* only serving that one unit) compressor and condenser that are located somewhere away from the unit cooler. This configuration is rare for commercial refrigeration equipment, but comprises a large proportion of walk-in refrigeration system applications.

To avoid confusion over the different configurations for walk-ins and commercial refrigeration equipment that can be classified as ''remote condensing'', DOE is not proposing to classify walk-in refrigeration systems as ''remote condensing'' and ''self-contained''. Also, DOE does not agree that the compressor and condenser parts should not be covered under the walk-in coolers and freezers rulemaking. Instead, DOE is proposing to include dedicated condensing units in the rule, even if remotely located, because these units could be viewed as part of the walk-in as long as they are connected only to that particular walk-in and not to other refrigeration equipment. For systems where the walk-in is connected to a multiplex condensing system that runs multiple pieces of equipment, the compressor and condenser would not be covered because they are not exclusively part of the walk-in.

In consideration of the above, DOE proposes to create two classes of refrigeration systems: dedicated condensing and multiplex condensing. DOE believes that dedicated remote condensing units represent a substantial opportunity for energy savings in a regulation for walk-in components because the configuration of a dedicated remote condensing unit is widespread in several market segments, such as restaurants. Manufacturers can optimize the dedicated remote condensing unit with the unit cooler to take advantage of certain conditions, such as low ambient outdoor temperatures.

DOE does not propose to create separate classes for dedicated packaged systems (where the unit cooler and condensing unit are integrated into a single piece of equipment) and dedicated split systems (with separate unit cooler and condensing unit sections). Packaged systems are potentially more efficient than split systems because they do not experience as much energy loss in the refrigerant lines. However, because packaged systems comprise a small share of the refrigeration market, DOE currently believes that little additional energy savings could be achieved by considering them as a separate class. Accordingly, DOE is not proposing to consider the creation of a separate packaged systems class.

DOE also notes that its proposed standards for dedicated condensing systems are based on an analysis of split systems. DOE requests comment on its proposal not to consider dedicated packaged systems and dedicated split systems as separate classes and whether this proposal would unfairly disadvantage any manufacturers.

Operating Temperature

The second physical characteristic that DOE proposes as a basis for dividing refrigeration systems into equipment classes is the operating temperature. EPCA divides walk-in equipment into coolers (above 32 °F) and freezers (at or below 32 °F) (42 U.S.C. 6311(20)) Using this distinction, DOE is proposing to categorize refrigeration systems as low or medium temperature systems based on the temperature profiles of their unit coolers. The medium (M) and low (L) temperature units are differentiated by their operating temperatures, which are greater than 32 °F (for coolers) and less than or equal to 32 °F (for freezers). In response to DOE's discussion of these classes in the preliminary analysis, Ingersoll Rand suggested that any walk-in with defrost be rated as a freezer regardless of the operating temperature. (Ingersoll Rand, No. 0053.1 at p. 1) DOE has not adopted these suggestions because doing so would conflict with the statutory distinction created by Congress that relies on operating temperature to distinguish between walk-in coolers and freezers. See 42 U.S.C. 6311(2) (treating walk-ins as separate equipment based on whether they are coolers or freezers).

Furthermore, applying the rating conditions for low temperature refrigeration systems is unlikely to enable a tester to accurately measure the efficiency of a medium temperature refrigeration system. Requiring a refrigeration system with defrost to be rated at the low temperature rating conditions even if it is designed to operate closer to the medium temperature rating conditions could lead to inaccurate equipment ratings for such equipment. In certain cases, applying temperature ratings in this manner may not permit this type of equipment to be rated at low temperature rating conditions if it is not designed to operate at those conditions.[14]

Location of the Walk-In

The third physical characteristic DOE considered is the location of the condensing unit (*i.e.,* indoor or outdoor), which also affects the energy consumption of dedicated condensing systems. Indoor refrigeration systems generally operate at fixed ambient temperatures, while outdoor refrigeration systems experience varying temperatures through the year. This change in temperature affects the performance of the refrigeration system by requiring it to operate more during

[14] For example, most medium temperature unit coolers are designed to operate between 15 °F and 45 °F, and would not be able to operate at the low temperature rating condition of −10 °F.

warmer conditions and less during colder ones. Accordingly, the test procedure has one ambient rating condition for indoor systems and three ambient rating temperatures for outdoor systems.

In the preliminary analysis, DOE considered creating separate classes for refrigeration systems with indoor (I) and outdoor (O) condensing units because of their different energy consumption characteristics. Outdoor condensing units can also implement a wide variety of design options to run more efficiently at low ambient temperatures. (In contrast, DOE did not consider indoor and outdoor envelope components as belonging to separate classes partly because of the absence of available options for improving efficiency based on the ambient temperature. See section IV.A.3.a for details.) Following the preliminary analysis, DOE did not receive any comments regarding the indoor and outdoor condensing unit classes, and therefore proposes the same differentiation in this NOPR.

Refrigeration Equipment Size

In the preliminary analysis, DOE did not consider different equipment classes based on refrigeration equipment size. Heatcraft suggested adding sub-categories to the proposed equipment classes, stating that the size of refrigeration systems varies with envelope size. (Heatcraft, No. 0069.1 at p. 1) Manitowoc commented that small sized equipment would struggle to meet minimum standards if DOE based the metric on a larger size, largely due to the efficiency difference of each system size. (Manitowoc, Public Meeting Transcript, No. 0044 at p. 118)

DOE is not proposing to base refrigeration system classes on envelope size because it is taking a component-level approach that sets standards for the refrigeration system independent of the envelope. In reaching this tentative decision, DOE examined the ability of various sized equipment to meet a proposed standard. For the NOPR analysis, DOE analyzed a wider range of equipment sizes than it did for the preliminary analysis, as described later in section IV.C.1.b. As a result of this expanded analysis, DOE observed that small sized equipment may have difficulty meeting an efficiency standard that is based on an analysis of large equipment, as Manitowoc noted. DOE found that this result was primarily due to a lack of availability of the more efficient compressor types (*e.g.,* scroll compressors) at lower capacities. Additionally, certain design options, mainly controls, generally have a fixed cost, but their benefit decreases with lower capacities, so they are less cost-effective for lower-capacity equipment. Therefore, DOE proposes one equipment class for high-capacity equipment and another for low-capacity equipment within the dedicated condensing category (because the compressor is covered only for DC systems). DOE has tentatively chosen 9,000 Btu/h as the capacity threshold for small- and large-capacity equipment based on the efficiency characteristics of available compressors, among other factors. See chapter 3 for details. DOE requests comment on the capacity threshold between the two capacity classes for dedicated condensing systems.

Proposed Classes

Using the proposed combinations of condensing unit types, operating temperatures, location, and size, ten equipment classes are possible for walk-in cooler or freezer refrigeration systems. DOE believes that these ten classes accurately represent the refrigeration units used in the walk-in market today.

Table IV–2 lists the equipment classes for refrigeration equipment that DOE is proposing in this NOPR. The column entitled ''Class'' lists the codes that will be used to abbreviate each equipment class, and will be used throughout the NOPR.

TABLE IV–2—EQUIPMENT CLASSES FOR REFRIGERATION EQUIPMENT

Condensing type	Operating temperature	Condenser location	Refrigeration capacity (Btu/h)	Class
Dedicated	Medium	Indoor	< 9,000	DC.M.I, < 9,000
			≥ 9,000	DC.M.I, ≥ 9,000
		Outdoor	< 9,000	DC.M.O, < 9,000
			≥ 9,000	DC.M.O, ≥ 9,000
	Low	Indoor	< 9,000	DC.L.I, < 9,000
			≥ 9,000	DC.L.I, ≥ 9,000
		Outdoor	< 9,000	DC.L.O, < 9,000
			≥ 9,000	DC.L.O, ≥ 9,000
Multiplex	Medium			MC.M
	Low			MC.L

4. Technology Assessment

In a technology assessment, DOE identifies technologies and designs that could be used to improve the energy efficiency or performance of covered equipment. For the preliminary analysis, DOE conducted a technology assessment to identify all technologies and designs that could be used to improve the energy efficiency of walk-ins or walk-in components. DOE described these technologies in chapter 3 of the preliminary TSD.

DOE received several comments in response to its preliminary list of technology options. NEEA and NPCC recommended that DOE include modulating condenser fan controls in its analysis because there are significant potential energy savings from this technology. (NEEA and NPCC, No. 0059.1 at p. 8) Emerson agreed and noted that higher-efficiency compressors often require modulating fan controls to realize the full benefit of the higher-efficiency compressors. (Emerson, Public Meeting Transcript, No. 0045 at p. 90) The Joint Utilities pointed out that DOE did not include variable speed controls for condenser fans. (Joint Utilities, No. 0061.1 at p.10) In addition, NEEA and NPCC recommended that DOE include liquid suction heat exchangers in its analysis because there are significant potential energy savings from this technology. (NEEA and NPCC, No. 0059.1 at p. 8)

In response to the recommendation that DOE consider condenser fan controls, DOE has added condenser fan controls as a design option because it determined through further analysis that they could be an effective means of saving energy. As to NEEA and NPCC's recommendation that DOE include liquid suction heat exchangers, DOE also considered liquid suction heat exchangers in the technology

assessment because this technology could potentially be used to save energy. However, DOE screened this option from further consideration because further examination indicated that it would be unlikely to yield significant energy savings under the rating conditions used in setting standards for walk-in equipment. See chapters 3, 4, and 5 of the TSD for more details on the technologies considered in the analysis.

B. Screening Analysis

DOE uses four screening criteria to determine which design options are suitable for further consideration in a standards rulemaking. Namely, design options will be removed from consideration if they (1) are not technologically feasible; (2) are not practicable to manufacture, install, or service; (3) have adverse impacts on product utility or product availability; or (4) have adverse impacts on health or safety. 10 CFR 430, subpart C, appendix A, sections (4)(a)(4) and (5)(b).)

1. Technologies That Do Not Affect Rated Performance

In the preliminary analysis TSD, DOE proposed to screen out the following technologies because they do not improve energy efficiency: non-penetrative internal racks and shelving, air and water infiltration sensors, humidity sensors, and heat flux sensors.

For the reasons stated in the test procedure final rule, DOE's test procedure establishes metrics to test the energy consumption or energy use of walk-in components and does not include heat load caused by infiltration. See 76 FR at 21594–21595. As a result, DOE included additional infiltration-related technologies in the following list of technologies that do not improve rated performance:

- Internal racks and shelving that are non-penetrative;
- Air and water infiltration sensors;
- Extruded polystyrene insulation;
- Humidity sensors;
- Heat flux sensors;
- Door gasketing improvements and panel interface systems;
- Automatic door opening and closing systems;
- Air curtains;
- Strip curtains;
- Vestibule entryways; and
- Insulation with improved moisture resistance.

In the preliminary analysis, DOE listed hot gas defrost as a technology that does not improve rated performance of refrigeration equipment. In response, the Joint Utilities stated that DOE should include hot gas defrost. (Joint Utilities, Public Meeting Transcript, No. 0045 at p. 25; Joint Utilities, No. 0061.1 at pp. 3, 7, and 10). DOE has included hot gas defrost as a design option for multiplex condensing systems, but not for dedicated condensing systems due to its lack of effectiveness in improving efficiency. Specifically, for multiplex condensing systems, the hot gas defrost system utilizes hot gas generated by the compressor rack. Because at least one of the compressors in the rack is likely to be running (because the rack also has to operate with other refrigeration units) no new energy is consumed to generate the hot gas. In contrast, for dedicated systems, the condensing unit typically turns off during an electric defrost cycle. Running the compressor to generate hot gas at a time when it would normally be off results in energy use that outweighs the energy saved by using hot gas defrost instead of electric defrost. See chapters 3 and 5 of the TSD for details.

Also as part of the preliminary analysis, DOE analyzed the envelope and the refrigeration system separately and did not consider design options that depend on the interaction between the envelope and the refrigeration system. SCE suggested that DOE consider control options that depend on the interaction between envelope components and the refrigeration system, such as a control that turns off the evaporator fan when the door is opened. SCE suggested that DOE evaluate such technologies by establishing a typical, nominal savings value for use in energy consumption equations. (SCE, Public Meeting Transcript, No. 0045 at p. 25) Similarly, NEEA and NPCC stated that such technological controls have not been included in the design options. (NEEA and NPCC, No. 0059.1 at p. 7)

A nominal savings value, as suggested by SCE, would be highly dependent on many assumptions about the application of the walk-in and the pairing of the refrigeration system with the walk-in. As a result, DOE does not believe that it would be reasonable to apply this shared value to all refrigeration system or door manufacturers because of the wide variety of equipment produced by these entities for walk-in applications. Moreover, DOE's proposed component level approach eliminates the need to consider design options whose efficacy depends on the interaction between different components.

DOE also did not consider design options whose benefits would not be captured by the test procedure, such as economizer cooling. Economizer cooling consists of directly venting outside air into the interior of the walk-in when the outside air is as cold as or colder than the interior of the walk-in. This technique relieves the load on the refrigeration system when a pull-down load (*i.e.,* a load due to items brought into the walk-in at a higher temperature than the operating temperature and must then be cooled to the operating temperature) is necessary. However, the test procedure does not include a method for accounting for economizer cooling, as it does not specify conditions for air that would be vented into the walk-in, nor does it provide a method for measuring the energy use of the economizer. Therefore, any benefits from including an economizer on a WICF would not be captured by the test procedure.

2. Screened-Out Technologies

a. Panels and Doors

In the preliminary analysis, DOE screened out the following technologies for envelopes: revolving doors, energy storage systems, fiber optic natural light, non-electric anti-sweat systems, and automatic insulation deployment systems. DOE did not receive comments regarding any of the screened-out technologies, and will continue to exclude them from this rulemaking. DOE has also screened out additional technologies as part of its proposal to regulate the components of the envelope separately (*i.e.,* display doors, non-display doors, and panels.) See chapter 4 of the TSD for more details on the screened-out technologies.

b. Refrigeration

In the preliminary analysis, DOE screened out the following technologies for refrigeration systems: Higher-efficiency evaporator fan motors, improved evaporator coil, three-phase motors, and economizer cooling. In response to DOE's request for comment on the screening analysis, American Panel, AHRI and CrownTonka agreed with this approach to screen out these technologies. (American Panel, Public Meeting Transcript, No. 0045 at p. 98; AHRI. Public Meeting Transcript, No. 0045 at p. 99; CrownTonka, No. 0057.1 at p. 1) Emerson, however, disagreed with DOE's decision to screen out economizer cooling because there are potential energy savings under certain circumstances. (Emerson, Public Meeting Transcript, No. 0045 at p. 100) Also, Heatcraft disagreed with the exclusion of phase motor technology because three-phase motors are the dominant motor type in the larger walk-in envelopes that are a part of this rulemaking. (Heatcraft No. 0069.1 at p. 2) Manitowoc remarked that there are

other ways to achieve an effective economizer cooling cycle and encouraged DOE to investigate other options to improve cycle efficiency, but did not provide any specific recommendations. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 92)

DOE continues to screen out three-phase motor technology. The use of three-phase motor technology generally provides higher energy savings as compared to single-phase motors. Three-phase power is commonly used to power large motors and heavy electrical loads; however, it is not available for all businesses, particularly small business consumers of walk-ins. DOE did not consider three-phase motor technology as a design option based on utility to the consumer, one of the four screening criteria. In addition, use of three-phase motor technology may also be impracticable to install and service given the lack of three-phase power for some businesses. DOE did find that, as Heatcraft noted, very large refrigeration systems typically use three-phase power, and notes that manufacturers may use three-phase motors to improve the efficiency ratings of their equipment as the benefit would likely be captured by the test procedure. However, DOE continued to screen three-phase motor technology from its analysis for the reasons discussed above.

DOE also did not consider economizer cooling in its analysis. Although there are potential energy savings under certain circumstances, as Emerson mentioned, these energy savings are not captured by the test procedure, as discussed in section IV.B.1.

Regarding Manitowoc's remark about considering other options to improve cycle efficiency, DOE did not identify any options to improve cycle efficiency beyond what was already considered. DOE requests specific recommendations on how to improve cycle efficiency.

3. Screened-In Technologies

Based on DOE's decision to regulate walk-ins on a component level, DOE will consider separate technologies for each covered walk-in component (*i.e.* panels, display doors, non-display doors, and refrigeration systems). The remaining technologies that were not ''screened-out'' are called the ''screened-in'' technologies and will be used to create design options for improving the efficiency of the walk-in components. The ''screened-in'' technologies for each covered component include:

- *Panels*
  - Insulation thickness
  - Insulation material
  - Framing material
- Display doors
  - High-efficiency lighting
  - Occupancy sensors
  - Improved glass system insulation performance
  - Anti-sweat heater controls
- *Non-display doors*
  - Insulation thickness
  - Insulation material
  - Framing material
  - Improved window glass systems
  - Anti-sweat heat controls
- Refrigeration Systems
  - Higher efficiency compressors
  - Improved condenser coil
  - Higher efficiency condenser fan motors
  - Improved condenser fan blades
  - Condenser fan control
  - Ambient sub-cooling
  - Improved evaporator fan blades
  - Evaporator fan control
  - Defrost controls
  - Hot gas defrost
  - Head pressure control

C. Engineering Analysis

The engineering analysis determines the manufacturing costs of achieving increased efficiency or decreased energy consumption. DOE has identified the following three methodologies to generate the manufacturing costs needed for the engineering analysis: (1) The design-option approach, which provides the incremental costs of adding design options to a baseline model to improve its efficiency; (2) the efficiency-level approach, which provides the relative costs of achieving increases in energy efficiency levels without regard to the particular design options used to achieve such increases; and (3) the cost-assessment (or reverse engineering) approach, which provides ''bottom-up'' manufacturing cost assessments for achieving various levels of increased efficiency based on detailed data as to costs for parts and material, labor, shipping/packaging, and investment for models that operate at particular efficiency levels.

DOE conducted the engineering analyses for this rulemaking using a combination of the design-option and cost-assessment approaches in analyzing the U-factor standards for panels, maximum energy use for non-display doors and display doors, and minimum AWEF for refrigeration systems. More specifically, DOE identified design options for analysis and then used the cost-assessment approach to determine the manufacturing costs and analytical modeling to determine the energy consumption at those levels. Additional details of the engineering analysis are in chapter 5 of the NOPR TSD.

1. Representative Equipment

a. Panels and Doors

In presenting the preliminary analysis, DOE proposed three representative sizes for each envelope equipment class: Small, medium, and large. American Panel agreed with the sizes that DOE proposed. (American Panel, No. 0048.1 at p. 4) CrownTonka recommended that the equipment classes for envelopes be divided into only two sections, small and medium, because EPCA covers only walk-ins of less than 3,000 square feet, which excludes sizes that are typically considered ''large.'' (CrownTonka, Public Meeting Transcript, No. 0045 at p.111) Heatcraft agreed that the sizes chosen are small, as all the sizes considered must be less than 3,000 square feet, and they recommended that the distribution of envelope sizes include larger sizes approaching the 3,000 square foot limit, the maximum size limit defined in the statute. Heatcraft also stated that the selected envelope sizes will have an effect on the engineering analysis because certain technologies are utilized at different sizes. (Heatcraft, Public Meeting Transcript, No. 0045 at p. 111, No. 0058.1 at p. 4) American Panel suggested that DOE use three sizes and investigate using an extra large size. (American Panel, Public Meeting Transcript, No. 0045 at p. 114) Manitowoc asserted that DOE did not include a large enough range of sizes and should consider smaller sized walk-ins to correctly represent the energy consumption of a given unit. Additionally, Manitowoc noted that as the walk-in's size increases, there are different base levels of performance and that if DOE sets the minimum efficiency based on a larger size, manufacturers will not be able to make small-sized equipment meeting the standards. (Manitowoc, Public Meeting Transcript, No. 0045 at pp. 116 and 118) Hill Phoenix recommended that the envelope sizes be determined by surface area or volume. (Hill Phoenix, No. 0066.1 at p. 2) NEEA and NPCC suggested that DOE establish a standard based on the square feet of panels shipped each year and use the square footage to determine the energy consumption of a complete functioning envelope. (NEEA and NPCC, No. 0059.1 at p. 8)

DOE notes that its proposal rests on a component-based approach and does not include infiltration losses. As a result, the size of the walk-in envelope does not affect the energy consumption of the components. In regard to American Panel's and Heatcraft's

comments about large sized walk-ins, DOE analyzed a large panel size that it considered to represent the large panels found in the industry. DOE anticipated the possibility raised by Manitowoc that small panels might not be able to meet a standard based on the large panel size previously under consideration and is now considering the adoption of an approach that considers small, medium, and large sizes. As Hill Phoenix suggested, DOE determined the size of the panel based on the panel's surface area. Also, similar to NEEA and NPCC's suggestion, DOE is proposing a standard for walk-in panels based on the panel's surface area.

Panels

As explained previously, the engineering analysis for walk-in panels uses three different panel sizes to represent the variations within each class. DOE determined the sizes based on market research and the impact on the test metric U-factor. Table IV–3 shows each equipment class and the representative sizes associated with that class. DOE requests comment on the representative sizes used in the proposed analysis.

TABLE IV–3—SIZES ANALYZED: PANELS

Equipment class	Size code	Representative height (feet)	Representative width (feet)
SP.M	SML	8	1.5
	MED	8	4
	LRG	9	5.5
SP.L	SML	8	1.5
	MED	8	4
	LRG	9	5.5
FP.L	SML	8	2
	MED	8	4
	LRG	9	6

Doors

Similar to the panel analysis, the engineering analyses for walk-in display and non-display doors both use three different sizes to represent the differences in doors within each size class DOE examined. The door sizes were determined using market research. Details are provided in Table IV–4 for non-display doors and Table IV–5 for display doors.

TABLE IV–4—SIZES ANALYZED: NON-DISPLAY DOORS

Equipment class	Size code	Representative height (feet)	Representative width (feet)
PD.M	SML	6.5	2.5
	MED	7	3
	LRG	7.5	4
PD.L	SML	6.5	2.5
	MED	7	3
	LRG	7.5	4
FD.M	SML	8	5
	MED	9	7
	LRG	12	7
FD.L	SML	8	5
	MED	9	7
	LRG	12	7

TABLE IV–5—SIZES ANALYZED: DISPLAY DOORS

Equipment class	Size code	Representative height (feet)	Representative width (feet)
DD.M	SML	5.25	2.25
	MED	6.25	2.5
	LRG	7	3
DD.L	SML	5.25	2.25
	MED	6.25	2.5
	LRG	7	3

b. Refrigeration

In the engineering analysis for walk-in refrigeration systems, DOE used a range of capacities as analysis points for each equipment class. The name of each equipment class along with the naming convention was discussed in section IV.A.3.b. In addition to the multiple analysis points, scroll, hermetic, and semi-hermetic compressors were also investigated because different compressor types have different

efficiencies and costs.[15] Due to the wide range of capacities considered for each condenser type, and the availability of compressors at certain capacities, compressors closely matching the condenser capacities were examined in terms of their performance at varying operating temperatures.

Table IV–6 identifies, for each class of refrigeration system, the sizes of the equipment DOE analyzed in the engineering analysis. Chapter 5 of the NOPR TSD includes additional details on the representative equipment classes used in the analysis.

TABLE IV–6—SIZES ANALYZED: REFRIGERATION SYSTEM

Equipment class	Sizes analyzed (Btu/h)	Compressors analyzed
DC.M.I, < 9,000	6,000	Hermetic, Semi-hermetic.
DC.M.I, ≥ 9,000	18,000	Hermetic, Semi-hermetic, Scroll.
	54,000	Semi-Hermetic, Scroll.
	96,000	Semi-Hermetic, Scroll.
DC.M.O, < 9,000	6,000	Hermetic, Semi-hermetic.
DC.M.O, ≥ 9,000	18,000	Hermetic, Semi-hermetic, Scroll.
	54,000	Semi-Hermetic, Scroll.
	96,000	Semi-Hermetic, Scroll.
DC.L.I, < 9,000	6,000	Hermetic, Semi-hermetic, Scroll.
DC.L.I, ≥ 9,000	9,000	Hermetic, Semi-hermetic, Scroll.
	54,000	Semi-Hermetic, Scroll.
DC.L.O, < 9,000	6,000	Hermetic, Semi-hermetic, Scroll.
DC.L.O, ≥ 9,000	9,000	Hermetic, Semi-hermetic, Scroll.
	54,000	Semi-Hermetic, Scroll.
	72,000	Semi-Hermetic.
MC.M	4,000	
	9,000	
	24,000	
MC.L	4,000	
	9,000	
	18,000	
	40,000	

2. Energy Modeling Methodology

In the preliminary analysis, DOE proposed using an energy consumption model to estimate separately the energy consumption rating of entire envelopes and entire refrigeration systems at various performance levels using a design-option approach. DOE developed the model as a Microsoft Excel spreadsheet. The spreadsheet calculated the cumulative effect on the energy consumption of adding options above the baseline.

DOE continues to use a spreadsheet-based model, but is now modeling panels, display doors, non-display doors, and refrigeration systems separately because these components are tested separately. As mentioned above, the purpose of the engineering analysis is to determine the manufacturing costs of achieving increased efficiency or decreased energy consumption. DOE assumes that manufacturers will only incur costs to achieve efficiency gains or energy reductions that are accounted for in their certified equipment rating. Therefore, the energy models estimate the performance rating that the manufacturer would obtain by testing their equipment using the DOE test procedure because manufacturers are required to rate the components using the test procedure. The models estimate the energy ratings of baseline equipment and levels of performance above the baseline associated with specific design options that are added cumulatively to the baseline equipment. The model does not account for interactions between refrigeration systems and envelope components, nor does it address how a design option for one component may affect the energy consumption of other components, because such effects are not accounted for in the test procedure. Component performance results are found in appendix 5A of the TSD. DOE requests comment on the performance data found in appendix 5A of the TSD and requests data about the performance of panels, display doors, or non-display doors and their design options.

a. Refrigeration

The refrigeration energy model calculates the annual energy consumption and the AWEF of walk-in refrigeration systems at various performance levels using a design option approach. AWEF is the ratio of the total heat removed, in Btus, from a walk-in envelope during a one-year period of use (not including the heat generated by operation of the refrigeration system) to the total energy input of refrigeration systems, in watt-hours, during the same period. DOE proposes to base its standards for the refrigeration system using the AWEF metric and seeks comment on this approach.

This model was used to analyze specific examples of equipment in each refrigeration system equipment class. For a given class, the analysis consists of calculating the annual energy consumption and the AWEF for the baseline and several levels of performance above the baseline. See chapter 5 of the TSD for further details about the analytical models used in the engineering analysis.

For the preliminary analysis, DOE partially relied on refrigeration catalog information to obtain equipment specifications for its energy model. Manitowoc and the Joint Utilities believed that catalog information was not the best source from an analytical standpoint. Manitowoc observed that catalog information is provided mainly for sizing equipment and not for representing equipment performance, while the Joint Utilities pointed out that

[15] Scroll compressors are compressors that operate using two interlocking, rotating scrolls that compress the refrigerant. Hermetic and semi-hermetic compressors are piston-based compressors and the key difference between the two is that hermetic compressors are sealed and hence more difficult to repair, resulting in higher replacement costs, while semi-hermetic compressors can be repaired relatively easily.

the rating methodology that produced the data in the catalogs could be different from the rating methodology for walk-ins, which could make the data inappropriate for analyzing walk-ins. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 31; Joint Utilities, No. 0061.1 at p. 3)

In recognition of these comments, DOE conducted further research into refrigeration system performance and has improved the analysis for the NOPR in several ways. First, the energy model now calculates system performance based on a whole-system approach using thermodynamic principles. The model determines the refrigerant properties (pressure, temperature, etc.) at each point in the system and these properties, rather than catalog specifications, are used to calculate refrigeration capacity. Second, for any catalog information based on specific rating conditions, DOE ensured the rating conditions were consistent with those for walk-in refrigeration systems, or adjusted the specifications accordingly. Third, while it continued to rely on catalog data directly for some equipment specifications (e.g., typical number of fans and fan horsepower for units of the sizes analyzed), DOE also surveyed catalogs from various manufacturers to determine the most representative specifications for a particular type and size of equipment. See chapter 5 for more details on the refrigeration system energy model and other enhancements made to its analysis.

The energy consumption calculations in the engineering analysis are based on calculations in AHRI 1250–2009, the industry test procedure incorporated by reference in the walk-in test procedure. 76 FR at 33631. These calculations involve the refrigeration system running at a high load for one-third of the time and a low load for two-thirds of the time. American Panel noted that the load profile for restaurants would generally be reversed (*i.e.,* the refrigeration system is sized for running at a high load two-thirds of the time and a low load one-third of the time) and requested DOE to adjust the load assumptions based on the walk-in application. (American Panel, No. 0048.1 at p. 8)

DOE's assumption in the engineering analysis about the refrigeration load profile was made for purposes of comparing the performance of different types of refrigeration equipment that have varying features. Furthermore, the analysis attempts to assess the impacts of technologies manufacturers might use to improve the efficiencies of their equipment, including impacts on the efficiency ratings of the equipment. DOE will base any standards it adopts on the use of some or all of these technologies, and the DOE test procedure would serve as the basis for rating equipment and determining compliance. Therefore, the test procedure calculations are used in the analysis to determine the efficiency ratings of equipment utilizing the various technologies on which DOE might base the standards.

However, DOE does not treat the load profile assumptions used in the engineering analysis as equivalent to the actual duty cycle of every class or application of refrigeration systems. Rather, where warranted, DOE evaluates other duty cycle assumptions in its energy use analysis, which examines the actual energy consumption of the refrigeration system under a variety of operating conditions and applications. In the energy use analysis, DOE has adjusted its assumptions for actual duty cycles based in part on American Panel's recommendation. See section IV.E.1 and chapter 7 of the TSD for details.

In the preliminary analysis, DOE analyzed the result of adding design options cumulatively to the baseline. DOE observed that some design options (*e.g.,* larger condenser coil) increased the efficiency of the refrigeration system while also increasing its capacity. To distinguish between these effects, DOE created a ''normalized energy consumption'' metric in the preliminary analysis which represented the energy consumption per unit capacity. DOE expected that the normalized energy consumption metric would generally be analogous to an efficiency metric. For example, for two units of the same capacity, the unit with lower normalized energy consumption would be more efficient because it would use less energy for the same heat removal capability.

In a comment on the preliminary analysis, American Panel stated that it was not beneficial for the capacity of a unit to increase because the refrigeration system must balance the heat load to control temperature and humidity. (American Panel, Public Meeting Transcript, No. 0045 at p. 175) After interviewing manufacturers and examining refrigeration catalogs, DOE observed that manufacturers typically offer refrigeration systems in specific, discrete capacities while providing consumers with options for improving system efficiency. DOE reasoned that manufacturers would likely design their systems for a certain set of capacities regardless of the efficiency options available and, consequently, implementing efficiency options on a system would be unlikely to change the capacity of the system because the manufacturer would prefer to market the system at the established capacity. Therefore, DOE agrees with American Panel's assessment and has implemented its suggestion into the NOPR analysis.

DOE notes that it analyzed six classes of refrigeration systems at various capacity points, as explained in section IV.C.1.b. When a design option is added to the baseline, it does not change the capacity of the unit; instead, other aspects of the system are adjusted to maintain the capacity at the specified point. See chapter 5 of the TSD for details.

In the preliminary analysis, DOE considered the effects of adding design options to the baseline. Some interested parties commented on the interactive effects of design options. Thermocore stated that there are substantial differences in performances based on the integrated system as opposed to considering options separately. (Thermocore, Public Meeting Transcript, No. 0045 at p. 86) Emerson stated that DOE must account for how the technologies are combined because the effects will vary depending on what is already included in the system. (Emerson, Public Meeting Transcript, No. 0045 at p. 93) AHRI agreed that efficiency gains due to combinations of certain design options are not necessarily additive and noted that assessing the aggregate benefit from combined design options requires rigorous analysis and simulation of the total system. (AHRI, No. 0055.1 at p. 2)

DOE recognizes that the interactive effects of design options must be considered because the efficacy of certain design options differs depending on whether they are analyzed separately or in conjunction with other design options. DOE has taken a system-based approach to the refrigeration system energy model that calculates the effect on the entire system of adding design options. Each efficiency level above the baseline consists of a design option added cumulatively and the interactive effects of each new design option on all previously added design options are considered. In formulating the cost-efficiency curves, DOE attempted to capture the most cost-effective design option at each efficiency level, given all previously added design options at that level. Manufacturers may use any combination of design options to meet the future energy conservation standard. See chapter 5 of the TSD for further discussion on the interactive effects of design options.

Some commenters disagreed with DOE's refrigeration energy modeling approach. SCE recommended using DOE 2.2R (an expanded version of the building simulation program DOE 2.2) to directly model certain design options, such as modulating the fan speed for the on-cycle fan power for a unit cooler connected to a multiplex system. (SCE, Public Meeting Transcript, No. 0045 at p. 138) NEEA and NPCC also stated that the spreadsheet-based model does not adequately evaluate all of the design options and their combinations, and that DOE should consider using DOE 2.2R for modeling instead. (NEEA and NPCC, No. 0059.1 at p. 9)

DOE 2.2R is designed to simulate the operation of building refrigeration systems, such as those found in supermarkets, refrigerated warehouses, and industrial facilities. Although DOE 2.2R is a powerful simulation tool that can aid in refrigeration system design, DOE believes it is inappropriate for the energy modeling that DOE is conducting as part of this rulemaking. This rulemaking is taking a component-level approach and determining the performance of each component (the panels, the doors, and the refrigeration system) separately, whereas DOE 2.2R models the interactions of components that comprise an entire building. Also, the component performance as modeled in the engineering analysis must be based on the operating conditions and calculations contained in the test procedure, which DOE believes is not consistent with the simulation methodology in DOE 2.2R. To address the concerns of SCE, NEEA and NPCC that a spreadsheet model would be inadequate for certain options or combinations of options, DOE has modified the spreadsheet model to more accurately account for combinations of design options and interactive effects of design options within a component. To address the Joint Utilities' concerns with fan speed modulation, DOE included calculations for fan speed modulation that are consistent with the test procedure.

Although DOE is not conducting the analysis using DOE 2.2R, DOE encourages interested parties to submit their own simulation results from DOE 2.2R modeling and compare them to DOE's engineering results.

3. Cost Assessment Methodology

a. Teardown Analysis

To calculate the manufacturing costs of the different components of walk-in coolers and freezers, DOE disassembled baseline equipment. This process of disassembling systems to obtain information on their baseline components is referred to as a ''physical teardown.'' During the physical teardown, DOE characterized each component that makes up the disassembled equipment according to its weight, dimensions, material, quantity, and the manufacturing processes used to fabricate and assemble it. The information was used to compile a bill of materials (BOM) that incorporates all materials, components, and fasteners classified as either raw materials or purchased parts and assemblies.

DOE also used a supplementary method, called a ''virtual teardown,'' which examines published manufacturer catalogs and supplementary component data to estimate the major physical differences between equipment that was physically disassembled and similar equipment that was not. For virtual teardowns, DOE gathered product data such as dimensions, weight, and design features from publicly-available information, such as manufacturer catalogs.

The teardown analyses allowed DOE to identify the technologies that manufacturers typically incorporate into their equipment. The end result of each teardown is a structured BOM, which DOE developed for each of the physical and virtual teardowns. DOE then used the BOM from the teardown analyses as one of the inputs to the cost model to calculate the manufacturer production cost (MPC) for the product that was torn down. The MPCs derived from the physical and virtual teardowns were then used to develop an industry average MPC for each equipment class analyzed. See chapter 5 of the NOPR TSD for more details on the teardown analysis.

For display doors and non-display freight doors, limited information was publicly available, particularly as to the assembly process and shipping. To compensate for this situation, DOE conducted physical teardowns for two representative units, one within each of these equipment classes. DOE supplemented the cost data it derived from these teardowns with information from manufacturer interviews. The cost models for panels and for non-display structural doors were created by using public catalog and brochure information posted on manufacturer Web sites and information gathered during manufacturer interviews.

For the refrigeration system, DOE conducted physical teardowns of unit cooler and condensing unit samples to construct a BOM. The selected systems were considered representative of baseline, medium-capacity systems, and used to determine the base components and accurately estimate the materials, processes, and labor required to manufacture each individual component. From these teardowns, DOE gleaned important information and data not typically found in catalogs and brochures, such as heat exchanger and fan motor details, assembly parts and processes, and shipment packaging.

Along with the physical teardowns, DOE performed several virtual teardowns of refrigeration units for the NOPR analysis. The complete set of teardowns helped DOE obtain the baseline average MPC for all equipment classes proposed.

b. Cost Model

The cost model is one of the analytical tools DOE used in constructing cost-efficiency curves. DOE derived the cost model from the teardown BOMs and the raw material and purchased parts databases. Cost model results are based on material prices, conversion processes used by manufacturers, labor rates, and overhead factors such as depreciation and utilities. For purchased parts, the cost model considers the purchasing volumes and adjusts prices accordingly. Original equipment manufacturers (OEMs), i.e., the manufacturers of WICF components, convert raw materials into parts for assembly, and also purchase parts that arrive as finished goods, ready-to-assemble. DOE bases most raw material prices on past manufacturer quotes that have been inflated to present day prices using Bureau of Labor Statistics (BLS) and American Metal Market (AMM) inflators. DOE inflates the costs of purchased parts similarly and also considers the purchasing volume—the higher the volume, the lower the price. Prices of all purchased parts and non-metal raw materials are based on the most current prices available, while raw metals are priced on the basis of a 5-year average to smooth out spikes. Chapter 5 of the NOPR TSD describes DOE's cost model and definitions, assumptions, data sources, and estimates.

For panels, non-display doors, and display doors DOE used a ''parameterized'' computational cost model, which allows a user to manipulate the components parameters such as height and length by inputting different numerical values for these features to produce new cost estimates. This parameterized model, coupled with the design specifications chosen for each representative unit modeled in the engineering analysis, was used to develop fundamental MPC costs. The fundamental MPC costs were then

incorporated into the engineering analysis model where they were combined with additional costs associated with each design option. Costs for each design option were calculated based on discussions with panel, non-display, and display door manufacturers and pricing from commercially available sources.

As previously mentioned in section IV.B.3, DOE is considering high efficiency lighting, specifically light-emitting diode (LED) lighting, as a design option to improve the efficiency of display doors. Forecasts of the LED lighting industry, including those performed by DOE, suggest that LED lighting is an emerging technology that will continue to experience significant price decreases in coming years. For this reason, in an effort to capture the anticipated cost reduction in LED fixtures in the analyses for this rulemaking, DOE incorporated price projections from its Solid State Lighting program into its MPC values. The price projections for LED lighting were developed using projections created for the DOE's Solid State Lighting Program's 2012 report, *Energy Savings Potential of Solid-State Lighting in General Illumination Applications 2010 to 2030* (''the energy savings report''). In the appendix of this report, price projections from 2010 to 2030 were provided in ($/klm) for LED lamps and LED luminaires. DOE analyzed the models used in the Solid State Lighting program work and determined that the LED luminaire projection would serve as a proxy for a cost projection to apply to LEDs on walk-in display doors.

The price projections presented in the Solid State Lighting program's energy savings report are based on the DOE's 2011 Solid State Lighting R&D Multi-Year Program Plan (MYPP).[16] The MYPP is developed based on input from manufacturers, researchers, and other industry experts. This input is collected by the DOE at annual roundtable meetings and conferences. The projections are based on expectations dependent on the continued investment into solid state lighting by the DOE.

DOE incorporated the price projection trends from the energy savings report into its engineering analysis by using the data to develop a curve of decreasing LED prices normalized to a base year. That base year corresponded to the year when LED price data were collected for the NOPR analyses of this rulemaking from catalogs, manufacturer interviews, and other sources. DOE started with LED cost data specific to walk-in manufacturers and then applied the anticipated trend from the energy savings report to forecast the projected cost of LED fixtures at the time of required compliance with the proposed rule (2017). These 2017 cost figures were incorporated into the engineering analysis to calculate the MPC of display doors with LEDs as a design option. The LCC analysis (section IV.F) was carried out with the engineering numbers that account for the 2017 cost of LED luminaires. The reduction in costs of LED luminaires from 2018 to 2030 were taken into account in the NIA (section IV.G). The cost reductions were calculated for each year from 2018 and 2030 and subtracted from the equipment costs in the NIA.

During the preliminary analysis, DOE developed a cost model for the proposed representative sizes of walk-in envelopes. Panel manufacturers generally make panels with a combination of raw materials and purchased parts, and DOE estimated manufacturing process parameters, the required initial material quantity, scrap, and other factors to determine the value of each component. DOE then aggregated all parameters related to manufacture and assembly to determine facility requirements at various manufacturing scales and the final unit cost.

To more accurately model walk-in costs, DOE used common factory parameters, which affect the cost of each unit produced (*e.g.,* labor and fabrication rates). American Panel commented on some of the factors assumed in the cost model and the resulting values. In particular, in its view, approximately 1 million square feet of panels are manufactured per year per manufacturer, and most door manufacturers produce 1,800 doors per year. Accordingly, these numbers suggest a total walk-in production volume of well under DOE's initial estimate of 30,000 per year per manufacturer. American Panel believed that overestimating the amount of panels manufactured per year would cause the small manufacturers to be at a disadvantage. (American Panel, Public Meeting Transcript, No. 0045 at p. 14–15; American Panel, No. 0048.1 at pp. 5–6)

Assuming an average walk-in surface area of 500 ft^2 (roughly corresponding to an 8-foot by 10-foot walk-in), American Panel's estimate equates to approximately 2,000 walk-ins per year, per manufacturer—much lower than DOE's estimate. DOE understands that its estimate may be more reasonable for a large manufacturer than a small one and agrees with American Panel that impacts on small manufacturers may be underestimated in an analysis that assumes a high production capacity. Thus, DOE has considered particular impacts on small manufacturers in the MIA by adjusting for their reduced production capacity as compared to larger manufacturers. See sections IV.I.3.c and V.B.2.d (Manufacturer Impact Analysis) and VI.B (Regulatory Flexibility Analysis, which specifically address the impact of the rule on small business manufacturers).

Additionally, American Panel, citing its own experience, stated that other DOE cost estimates needed adjusting. Some examples include the following:

- The cost of the tongue and groove design found on panels should be increased by a factor of 10.8.
- The cost of the advanced door sweep should increase by a factor of 7.8.
- The DOE cost per square foot of panel was too high and actual costs were closer to $0.25 per square foot.
- The actual MSP for walk-in cooler envelopes was 70–112 percent lower than the DOE estimate.
- The actual MSP for walk-in freezer envelopes was 24–42 percent lower than the DOE estimate. (American Panel, Public Meeting Transcript, No. 0045 at pp. 14–15; American Panel, No. 0048.1 at pp. 5–6).

DOE appreciates the efforts made by American Panel in preparing detailed comments and providing useful information about factory parameters, material costs, and the resulting manufacturing selling price for walk-in envelopes. Some of the differences can be explained based on the parameters used in the cost model, such as the material costs. DOE particularly appreciates American Panel's comments related to the costs of certain designs and has taken these costs into consideration in its analysis by aggregating them with other data DOE has received through research and confidential manufacturer interviews. For instance, American Panel's cost per square foot of panel was particularly useful in helping DOE estimate the costs of certain materials that make up the panel.

DOE was not, however, able to use some of the cost data—for example, costs related to infiltration-reducing measures were not used because DOE is no longer considering infiltration in the analysis. Also, DOE has not calculated costs related to the assembly of the entire envelope—for instance, the MSP

[16] The DOE Solid-State Lighting Research and Development Multi-Year Program Plan is a document that outlines DOE's research goals and planned methodologies with respect to the advancement of solid-state lighting technologies in the United States. The complete document is available at: *http://apps1.eere.energy.gov/buildings/publications/pdfs/ssl/ssl_mypp2011_web.pdf.*

of the envelope—as part of the engineering analysis because of the component-based approach DOE is proposing to use. Consequently, DOE is now using the cost model to determine the manufacturer production costs and manufacturer selling prices of the individual components covered by the standards.

DOE estimated installation costs for the refrigeration systems and the envelope components separately as part of the life-cycle cost analysis. DOE has proposed new manufacturer cost estimates in chapter 5 of the TSD and seeks comment on the new parameters proposed for each component.

c. Manufacturing Production Cost

Once it finalized the cost estimates for all the components in each teardown unit, DOE totaled the cost of the materials, labor, and direct overhead used to manufacture the unit to calculate the manufacturer production cost of such equipment. The total cost of the equipment was broken down into two main costs: (1) The full manufacturer production cost, referred to as MPC; and (2) the non-production cost, which includes selling, general, and administration (SG&A) costs; the cost of research and development; and interest from borrowing for operations or capital expenditures. DOE estimated the MPC at each design level considered for each equipment class, from the baseline through max-tech. After incorporating all of the data into the cost model, DOE calculated the percentages attributable to each element of total production cost (*i.e.,* materials, labor, depreciation, and overhead). These percentages were used to validate the data by comparing them to manufacturers' actual financial data published in annual reports, along with feedback obtained from manufacturers during interviews. DOE uses these production cost percentages in the MIA (see section IV.I).

In the preliminary analysis, DOE developed both an envelope cost and a refrigeration system cost for each equipment class and size using a manufacturing cost model. See chapter 5 of the preliminary TSD. American Panel suggested that manufacturer cost should be estimated using a sample from 40 manufacturers and representative volumes. (American Panel, Public Meeting Transcript, No. 0045 at p. 312) In response to American Panel's comment, DOE believes it is infeasible to sample so many manufacturers because data on manufacturing cost and representative volumes are not publicly available for most manufacturers of walk-ins and walk-in components, particularly small, private companies. Additionally, not all manufacturers were willing to share cost information with DOE. DOE did hold confidential interviews with manufacturers, some of whom chose not to share this information. DOE notes that cost information it did obtain was helpful in enabling the agency to develop and refine its estimates of manufacturer cost. The interview process is explained in chapter 12 of the TSD.

d. Manufacturing Markup

DOE uses MSPs to conduct its downstream economic analyses. DOE calculated the MSPs by multiplying the manufacturer production cost by a markup and adding the equipment's shipping cost. The production price of the equipment is marked up to ensure that manufacturers can make a profit on the sale of the equipment. DOE gathered information from manufacturer interviews to determine the markup used by different equipment manufacturers. Using this information, DOE calculated an average markup for each component of a walk-in. DOE requests comments on the proposed markups listed in Table IV–7.

TABLE IV–7—MANUFACTURER MARKUPS

Walk-in component	Markup (percent)
Panels	32
Display Doors	50
Non-Display Doors	62
Refrigeration Equipment	35

e. Shipping Costs

In the preliminary analysis TSD, DOE calculated manufacturer shipping costs assuming that manufacturers include outbound freight as part of their equipment selling price. In response to DOE's request for comment on shipping assumptions, American Panel and NEEA and NPCC remarked that DOE's costs were significantly higher than actual industry shipping rates. (American Panel, Public Meeting Transcript, No. 0045 at pp. 15, 142; NEEA and NPCC, No. 0059 at p. 9) Additionally, American Panel stated that freight costs are typically paid in full by the customer and not absorbed by the manufacturer who is selling the equipment. (American Panel, No. 0048.1 at p. 5) Both American Panel and CrownTonka said that sometimes the freight cost would be included as part of the selling price and sometimes it would be entirely separate; *i.e.,* paid by the buyer directly to the freight company. (American Panel, Public Meeting Transcript, No. 0045 at p. 143; CrownTonka, Public Meeting Transcript, No. 0045 at p. 144) NEEA and NPCC stated that freight costs are normally included in the packaged price to consumers. (NEEA and NPCC, No. 0059.1 at p. 9)

DOE re-evaluated the shipping rates in preparing this NOPR. These rates were developed by conducting additional research on shipping rates and by interviewing manufacturers of the covered equipment. For example, DOE found through its research that most panel, display door, and non-display door manufacturers use less than truck load freight to ship their respective components and revised its estimated shipping rates accordingly. DOE also found that most manufacturers, when ordering component equipment for installation in their particular manufactured product, do not pay separately for shipping costs; rather, it is included in the selling price of the equipment. However, when manufacturers include the shipping costs in the equipment selling price, they typically do not mark up the shipping costs for profit, but instead include the full cost of shipping as part of the price quote. DOE has revised its methodology accordingly. Please refer to chapter 5 of the TSD for details.

4. Baseline Specifications

a. Panels and Doors

In the preliminary analysis, DOE set the baseline level of performance to correspond to the most common least efficient component that is compliant with the standards set forth in EPCA. (42 U.S.C. 6313(f)(1)(3)) DOE determined specifications for each equipment class by surveying currently available units and models. This approach was used for the NOPR analyses to determine the baseline units for panels, display doors, and non-display doors. More detail about the specifications for each baseline model can be found in chapter 5 of the TSD.

Because the walk-in market is comprised of panels insulated with polyurethane and extruded polystyrene, DOE proposed in the preliminary analysis that the R-value for the baseline insulation used in the walk-in envelope would be the average of the typical long term thermal resistance (LTTR) R-values of polyurethane and extruded polystyrene. CPI opposed the use of an average R-value for extruded polystyrene and polyurethane because it would affect the accuracy of the normalized energy consumption calculation for the envelope. (CPI, No.

0052.1, at p.1) DOE agrees with CPI's concern and is using in the revised analysis foam-in-place polyurethane as the baseline insulation for panels and non-display doors. Polyurethane is more commonly used as panel or non-display door insulation, has a better long term thermal resistance, and is less expensive than extruded polystyrene. DOE notes that extruded polystyrene may outperform polyurethane in other respects, like moisture absorption, which are not captured in the energy consumption model because they are not included in the test procedure.

DOE's analysis also uses wood framing members as the baseline framing material in panels. The analysis assumes the typical wood frame completely borders the insulation and is 1.5 inches wide. DOE requests comment on its baseline specifications for walk-in panels, specifically the assumptions about framing material and framing dimensions.

The baseline display doors modeled in DOE's analysis are based on the minimum specifications set by EPCA. (42 U.S.C. 6313(f)(3)) DOE modeled baseline display cooler doors comprised of two panes of glass with argon gas fill and hard coat low emittance or low-e coating. The baseline cooler display door requires 2.9 Watts per square foot of anti-sweat heater wire and does not have a heater wire controller. The baseline display freezer doors modeled in DOE's analysis consist of three panes of glass, argon gas, and soft coat low-e coating. Baseline freezer doors use 15.23 watts per square foot of anti-sweat heater wire power and require an anti-sweat heater wire controller. DOE also estimates that each baseline door includes one fluorescent light with electronic ballasts, with a door shorter than 6.5 feet having a 5-foot fluorescent bulb and a door equal to or taller than 6.5 feet having a 6-foot fluorescent bulb. DOE requests comment on the baseline assumptions for display cooler and freezer doors. In particular, DOE requests data illustrating the energy consumption of anti-sweat heaters found on cooler and freezer display doors.

DOE's analysis assumes that the baseline non-display doors are constructed in a similar manner to baseline panels. Therefore, DOE's analysis uses baseline non-display doors that consist of wood framing materials 1.5 inches wide that completely border the foamed-in-place polyurethane insulation. DOE also includes a small window in a non-display door that conforms to the standards set by EPCA. DOE estimates that all passage doors have a 2.25 square foot window regardless of the passage door's size. DOE analyzed two different size windows for non-display freight doors. The small freight doors have a 2.25 square foot window and both the medium and large freight doors have a 4-square foot window. DOE requests comment on the baseline specifications for non-display doors, and specifically on the size of the windows included in the baseline doors.

DOE also received comments about the amount of energy savings attributed to infiltration reduction devices (IRDs) on baseline walk-in doors. NEEA and NPCC commented that even though EISA requires an infiltration reduction device on the baseline door, DOE should also include additional IRDs as a design option. NEEA and NPCC continued to suggest that DOE should re-evaluate the amount of energy savings associated with IRDs. (NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 170) The Joint Utilities also believed that DOE overestimated the impacts of IRDs in the baseline doors and explained that overestimating the baseline savings from an IRD affects the amount of savings achieved by the design options DOE evaluated. (Joint Utilities, No. 0061.1 at p. 5) DOE agrees with NEEA and NPCC and the Joint Utilities that a baseline door must have an IRD because this is required by EPCA. (42 U.S.C. 6313(f)(1)(A)(B)) However, the walk-in test procedure does not measure energy consumption from door-opening infiltration so there is no rated energy saving from IRDs and DOE is not estimating the amount of energy saved from IRDs on baseline doors.

b. Refrigeration

As with panels and doors, DOE set the baseline level of refrigeration system performance to correspond to components that were the least efficient but compliant with the standards set forth in EPCA. See 42 U.S.C. 6313(f)(1)–(3). DOE determined specifications for each equipment class by surveying currently available models. See chapter 5 of the TSD for more details about the specifications for each baseline model.

In the preliminary analysis, DOE analyzed several representative baseline units for refrigeration systems and requested comment on the characterization of the baseline units. In response to DOE's request for comment on the representative units analyzed, several stakeholders expressed concern that the range of refrigeration systems DOE evaluated was too limited. Heatcraft and the Joint Utilities encouraged DOE to include larger capacity equipment and different compressor types. (Heatcraft, No. 0058.1 at pp. 3–4; Heatcraft, No. 0069.1 at p. 2; Joint Utilities, No. 0061.1 at p. 3) American Panel echoed this concern and stated that DOE should explore the full range of condensing units and that WICF envelopes should be paired with different sized refrigeration systems based on use. (American Panel, No. 0048.1 at pp. 8–9) DOE has considered these comments and has expanded its analysis to include a larger range of refrigeration system capacities. DOE has also included different compressor types in the refrigeration system analysis; see section IV.C.5.b and chapter 5 of the TSD for details. DOE has not considered pairing WICF envelopes and refrigeration systems in the engineering analysis, however, because DOE is applying a component-based approach.

The preliminary analysis also presented estimated baseline specifications and costs for the representative units it analyzed. American Panel remarked that the baseline costs in the engineering analysis were too low and were not comparable to their data. Additionally, it stated that the refrigeration load will increase if the product is not at the same temperature as the walk-in cooler or freezer. (American Panel, No. 0048.1 at p. 7) Interested parties also commented on certain baseline unit subcomponents that were not included in the engineering analysis. American Panel noted that baseline units could include a downstream solenoid valve that would prevent refrigerant from migrating to the evaporator and Heatcraft encouraged DOE to make sure that the amount of refrigerant, piping, and insulation scale properly with size. (American Panel, No. 0048.1 at p. 7; Heatcraft, No. 0069.1 at p. 3)

In response to American Panel's comments on refrigeration system costs, DOE adjusted its cost model as described in section IV.C.3 and believes its costs are now more representative of typical equipment. Regarding refrigeration load, DOE does not consider the effect of different product loads in the engineering analysis because the engineering analysis is based on the rating conditions; DOE considers product loads in the energy use analysis as explained in section IV.E.3. In response to American Panel's and Heatcraft's comments about subcomponents of refrigeration equipment, the revised analysis now includes all necessary subcomponents from the manufacturer—i.e., those subcomponents needed for the unit to operate. The analysis includes a calculation of refrigerant charge that is

scaled with the size of the unit, as Heatcraft suggested. DOE has tentatively decided not to include piping and insulation between the unit cooler and condensing unit, as it believes these components would not be supplied by the manufacturer or included in the equipment's MSP, but by the contractor upon installation of the equipment. DOE requests comment on this assumption.

In the preliminary analysis, DOE made certain assumptions regarding saturated evaporator temperature (SET) and saturated condensing temperature (SCT) that it used in the analysis for freezers and coolers and indoor and outdoor units. In general, DOE based these temperatures on an assumed temperature difference (TD) between the coil temperature and the ambient temperature where the ambient temperature for indoor and outdoor units was specified by the rating conditions in AHRI 1250–2009, the test procedure for refrigeration systems. 76 FR at 33631. The Joint Utilities and Heatcraft both submitted comments about the temperature set points in the baseline equipment; the Joint Utilities suggested a condensing temperature control point of 90 °F for both freezers and coolers, while Heatcraft recommended different temperatures for several equipment classes. (Joint Utilities, No. 0061.1 at p. 10; Heatcraft, No. 0069.1 at p. 2)

In determining appropriate temperature set points, DOE considered information from various sources when formulating its assumptions, including comments, research, and discussions with manufacturers and other parties. DOE notes that the ambient temperature for the test procedure is 90 and 95 °F for indoor and outdoor condensing units, respectively. Given that the system must maintain a reasonable TD between the SCT and the ambient temperature, the SCT during the test procedure would be higher than the 90–95 °F assumption recommended by the Joint Utilities. Even though the set point during actual use may be lower, equipment is rated—and evaluated for meeting the standard—at the test procedure rating points. For these reasons, DOE believes its SCT assumptions are reasonable for baseline equipment operating at the rating conditions required for the test procedure. DOE requests comment on this assumption, particularly whether the TDs for baseline and higher efficiency equipment are appropriate. See chapter 5 of the TSD for details.

5. Design Options

a. Panels and Doors

For the preliminary analysis, DOE included the following design options for the walk-in envelope:

- Improved wall, ceiling, and floor insulation
- Improved door gaskets and panel interface systems
- Electronic lighting ballasts and high-efficiency lighting
- Occupancy sensors and automatic door opening and closing systems
- Air curtains and strip curtains
- Vestibule entryways
- Display and window glass system insulation enhancements
- Anti-sweat heater controls and no anti sweat heat systems

In the preliminary analysis, DOE presented tables detailing each design option, including the cost of implementing each option and a description of the design option's properties. The discussion below sets forth comments received on these design options for panels and doors, as well as DOE's proposed approach in today's NOPR.

Panels

Stakeholders commented on steady state IRDs that DOE initially considered including as design options for the walk-in envelope. Craig Industries commented that DOE should consider different caulking materials as a design option because it is inexpensive and would reduce infiltration by sealing the joints of walk-ins, but noted that this design option would conflict with the current National Sanitation Foundation (NSF) standards. (Craig Industries, No. 0064.1 at p. 3) American Panel stated that changing the gasketing or joint profile of an insulated panel would require a new test burden of $20,000, and that the improved gasketing is not necessarily going to be functional. It also noted that improved panel interfaces may not mate with existing walk-in panels, which would prevent manufacturers from supplying replacement panels. Lastly, in its view, the complex gasketing and panel interface systems could cause walk-ins to become more difficult to build. (American Panel, No. 0048.1 at p. 6; American Panel, Public Meeting Transcript, No. 0045 at p. 121) Hill Phoenix commented that enhancing the gasketing between panels will not have a significant impact on the walk-in's energy consumption. In its view, the main heat load caused by infiltration is from door openings as opposed to steady state infiltration. (Hill Phoenix, No. 0066.1 at p. 3)

For the reasons stated in the test procedure final rule, the test procedure promulgated by DOE no longer requires manufacturers to measure a walk-in's steady-state infiltration. Therefore, design options for reducing steady state infiltration, including caulking and improved gasketing, would not impact the rated energy consumption of any of the walk-in components addressed in this rulemaking. 76 FR 21580, 21595 (April 15, 2011). Furthermore, DOE would screen out any design options (including caulking) that would be likely to have significant adverse impacts on the utility of the equipment or had an adverse impact on health or safety, according to the screening criteria described in section IV.B.

In the preliminary analysis, DOE considered design options that increased the baseline insulation thickness and improved insulation material. The preliminary analysis used a baseline insulation thickness of 4 inches and analyzed design options with increased insulation thicknesses of 5 inches, 6 inches, and 7 inches. The baseline panel insulation R-value was an average of extruded polystyrene and foamed-in-place polyurethane. The improved insulation materials in the preliminary analysis were vacuum insulated panel (VIP) insulation and hybrid insulation, a combination of the baseline material and vacuum insulated panels.

Many stakeholders commented on the proposed insulation improvements. American Panel did not agree with the initial costs DOE initially presented for the increased thicknesses of insulation. In its view, costs were higher due to the increased difficulty of manufacturing thicker panels. To accurately reflect this inefficiency, American Panel suggested DOE increase the cost of labor per panel because it takes more time to foam the fixture. (American Panel, No. 0048.1 at p. 5) American Panel also remarked that most manufacturers possess tooling that is adjustable only from 4–6 inches. (American Panel, Public Meeting Transcript, No. 0045 at p. 121) Hill Phoenix stated that panel thicknesses above 5.5 inches will have a costly impact on the manufacturer and end user because manufacturers need to purchase more equipment to deal with the increased weight and the end-user will need more floor space to house or site the walk-in. (Hill Phoenix, No. 0066.1 at p. 3) American Panel criticized the preliminary analysis for omitting insulating floor panels or an insulation slab with vertical breaks as design options. American Panel explained that although the payback period would be longer if these options

are included, DOE should still consider the long term energy savings that these options may yield. (American Panel, No. 0048.1 at p. 5)

DOE agrees with American Panel that most manufacturers do not currently have the tooling to produce panels with more than 6 inches of insulation. In addition, DOE finds that constructing and handling panels thicker than 6 inches would be unduly burdensome to the manufacturer because panels thicker than 6 inches would be very difficult to handle, store, ship, and produce at typical industry production volumes. Because panels thicker than 6 inches would not be practicable to manufacture, DOE screened them out from its analysis. DOE's NOPR analysis limits the maximum insulation thickness to 6 inches of foam and DOE does not expect its proposed standard to require panels thicker than 5 inches (see chapter 5 and appendix 10D of the TSD); however, the agency requests comment on this assumption in the analysis. DOE notes Hill Phoenix's comment about the increased labor cost associated with increasing the panel thickness and proposes to account for the increased cost of handling large panels in its cost-efficiency analysis. DOE also agrees with American Panel's comment that requiring insulated floor panels for walk-in coolers would produce long term energy savings. However, DOE is not proposing to set a standard for walk-in cooler floors as explained in section IV.A.2.a of this notice.

Two stakeholders made comments specifically about VIPs. NanoPore stated that silica-carbon based core materials have a better lifetime performance than fiberglass core materials when using vacuum insulated panels, and noted that VIPs have reached a point of large scale commercialization. (NanoPore, No. 0067.1 at pp. 1 and 6) However, Hill Phoenix commented that VIPs are impractical because of the high cost to the manufacturer, and that vacuum insulated panels would require additional labor and tooling. (Hill Phoenix, No. 0066.1 at p. 3)

DOE included hybrid insulation (half foam-in-place polyurethane and half VIP) as a design option to improve the efficiency of walk-in panels and non-display doors. It did not, however, include VIP insulation as a design option because DOE cannot definitively conclude that VIPs have the structural capability of supporting typical walk-in loads, particularly since VIPs can easily be punctured, which would cause a loss in thermal insulation (see chapter 5 of the TSD for details). DOE notes that while NanoPore stressed the benefits of silica-carbon based VIP, DOE did not specify the type of VIP used in the engineering analysis in order to maximize manufacturer flexibility in meeting the proposed standard. DOE agrees with Hill Phoenix that VIPs are more expensive and may require additional tooling, but DOE does not find this increased cost would prevent manufacturers from implementing VIPs. DOE also notes that the high costs of VIPs are captured in the engineering analysis for panels and non-display doors.

In its engineering analysis for walk-in panels, DOE included design options which increase the baseline insulation thickness, change the baseline insulation material from foam-in-place polyurethane to a hybrid of polyurethane and VIP, change the baseline framing material from wood to high density polyurethane, and eliminate a structural panel's framing material. DOE assumed in its analysis that freezer floor panels retain some type of framing material to maintain structural integrity because the foam itself may be unable to support heavy, perpendicular loads—e.g. personnel, machinery, and products—to the panel's face. DOE also assumed that high density polyurethane framing materials used in a panel have the same dimensions as the wood framing materials used in a wood-framed panel. DOE seeks comment on these panel design options, particularly with respect to the specifications for high density polyurethane framing materials.

Doors

Stakeholders also commented on design options that would reduce the infiltration from door openings: namely, automatic door opening and closing systems, which automatically open and close the door by sensing when a person is about to pass or has passed through; air curtains and strip curtains, both of which provide a secondary barrier to air infiltration when the door is open; and vestibule entryways, which consist of a series of two doors separated by a space through which one would pass to enter the walk-in. Hired Hand noted that the engineering analysis omitted automatic roll-up doors or bi-folding envelope doors, and that these doors cannot be adequately subsumed under ''automatic door opening and closing'' (which DOE did include) because this option does not capture the full benefit of these doors. (Hired Hand, No. 0050.1 at pp. 1–2) American Panel was skeptical that automatic door opening and closing sensors existed in the industry and did not agree with DOE's proposed cost of the technology. (American Panel, No. 0048.1 at p. 6) American Panel also stated that a vestibule is not a practical design option because the cost of the floor space and the layout of standard stores would be prohibitive to the end user. It noted that the cost of a vestibule is higher than DOE estimated, and predicted that the cost for materials and equipment would be well over $2,500. (American Panel, No. 0048.1 at pp. 3 and 6)

For the reasons stated in its recent final rule, the test procedure does not include a method for measuring the door opening infiltration associated with walk-ins. See 76 FR at 21595. Therefore, the energy consumption caused by door opening infiltration is not accounted for in the panel, display door, or non-display door engineering analyses, and design options related to door opening infiltration would not affect the energy consumption of the walk-in components.

Some stakeholders specifically commented about the strip curtains design option. NEEA and NPCC stated that strip curtains are already required by EPCA, and should not be considered a design option, but that infiltration load could still be reduced by additional IRDs. (NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 170; NEEA and NPCC, No. 0059.1 at p. 8) NEEA, NPCC and Master-Bilt disagreed with DOE's assumption that strip curtains can reduce the total energy consumption of a walk-in by half. NEEA and NPCC suggested strip curtains would more likely reduce the energy consumption by one third, according to a Pacific Northwest study, and Master-Bilt commented that strip curtains reduce the compressor load by less than 5 percent according to their own field tests. (NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 152; NEEA and NPCC, No. 0059.1 at p. 8; Master-Bilt, Public Meeting Transcript, No. 0045 at p. 159; Master-Bilt, No. 0046.1 at p. 1) American Panel noted that strip curtain manufacturers indicated that the device achieves a 25 percent reduction in air infiltration, much lower than DOE's assumption of 90 percent effectiveness. (American Panel, Public Meeting Transcript, No. 0045 at p. 154; American Panel, No. 0048.1 at p. 6) Lastly, AHRI also commented that DOE overestimated the benefit of strip curtains, and that DOE should verify their assumptions with field data; AHRI did not provide any alternative data on the benefit of strip curtains. (AHRI, No. 0055.1 at p. 2) As explained in section IV.B.1 of this document, however, infiltration devices are no longer included in the engineering analysis.

Stakeholders also commented on the door lighting design options presented in the preliminary analysis; specifically, occupancy sensors that cause the lights to operate only when people are present; electronic lighting ballasts, which are more efficient than typical magnetic ballasts; and high-efficiency light-emitting diode (LED) lighting, a type of lighting that uses semiconducting materials to produce light and uses less energy per lumen than incandescent or fluorescent lighting. American Panel stated that LED lighting is not a viable design option because the LED fixture and bulb payback period is 2.5 years. (American Panel, No. 0048.1 at p. 6) The Joint Utilities suggested that DOE should add LED lighting with motion controls as a design option for display cases. (Joint Utilities, Public Meeting Transcript, No. 0045 at p. 26; Joint Utilities, Public Meeting Transcript, No. 0045 at p. 89; Joint Utilities, No. 0061.1 at p. 3)

In response to American Panel's concern about the cost of LED lighting, DOE accounts for the cost of the bulb and fixture when estimating the total cost of LED lighting. However, DOE has not automatically eliminated LED lighting from consideration based on payback period but includes it in the range of design options it is considering. For more details on the payback period analysis, see section IV.F. In response to the suggestion from Joint Utilities, a combined design option with LED lighting and motion control sensors is not warranted because DOE already includes a lighting sensor and LED lighting as separate design options in the walk-in display door engineering analysis. A separate design option for lighting sensors allows the sensor to be applied to fluorescent as well as LED lighting.

Some stakeholders commented on the anti-sweat heater wire design option. CrownTonka commented that anti-sweat heater wire should be applied to non-display freezer doors and any windows in non-display doors. (CrownTonka, Public Meeting Transcript, No. 0045 at p. 89) Craig Industries supported the inclusion of self-regulating heater wire and noted that this wire is readily available and more efficient than other types of heater wires. (Craig Industries, No. 0064.1 at p. 1) DOE agrees with CrownTonka and proposes to include anti-sweat heater wire around the outer edge of non-display freezer doors as well as on the windows located on non-display doors as design options. In response to Craig Industries' suggestion, the energy savings from self-regulating anti-sweat heater wire alone cannot be captured in the proposed engineering analysis for display and non-display doors because the energy savings are not captured by the test procedure. The test procedure credits the manufacturer with energy savings if a preinstalled timer, control system or other auto-shut-off system is used in conjunction with anti-sweat heater wire. The credit is called a percent time off (PTO) credit, which reduces the calculated power associated with the device. 76 FR 33631, 33635, 33637 (June 9, 2011).

The display door design options used in the analysis include improved glass packs—where ''glass pack'' refers to the combination of glass panes, gas fill, and low-emission coatings making up the transparent part of the door; anti-sweat heater controls for cooler doors; LED lighting; and lighting sensors that control when the lights turn on and off. DOE did not analyze anti-sweat heater controls for freezer display doors because baseline freezer doors are already required to have a controller to regulate the power consumed by the anti-sweat heater wire. EISA requires all freezer doors to have an anti-sweat heater control if the anti-sweat heater wire consumes more than 7.1 watts per square foot of door opening, and DOE estimated that baseline display doors consume 15.2 watts per square foot of door opening. Therefore, baseline display doors already have an anti-sweat heater wire control system in order to comply with EISA.

As explained previously, the walk-in cooler and freezer test procedure credits the manufacturer for having a control. The type or amount of controls does not change the credit nor increase the energy savings realized by the DOE test procedure. For these reasons, DOE did not include control systems as a design option. Additionally, DOE did not consider eliminating anti-sweat heater wire as a separate design option. The improvements made to the glass pack cause a reduction in the power draw of the anti-sweat heater wire. In the case of display cooler doors, the performance of the glass pack is improved enough so that anti-sweat heater wire is no longer required on the door. DOE also did not consider higher efficiency ballasts in its analysis because it found that electronic ballasts already incorporated into baseline units and DOE is not aware of more efficient ballasts. DOE requests comment on its analyzed design options and specifically seeks any heat transfer data for the improved glass packs detailed in chapter 5 of the TSD.

The design options that DOE analyzed in the engineering analysis for non-display doors include increasing the insulation thickness, changing the insulation material from baseline to a hybrid of polyurethane and VIP, changing the baseline framing material from wood to high density polyurethane, improving the window's glass pack, and adding an anti-sweat heater wire controller to the door. These options are more fully described in chapter 5 of the TSD. DOE requests comment on the non-display door design options it analyzed, particularly with respect to the cost of the window improvements detailed in chapter 5 of the TSD.

American Panel suggested that DOE consider low cost methods for extending the envelope and door lifetimes. (American Panel, No. 0048.1 at p. 9) DOE has not considered options in this analysis that do not improve the rated performance of the equipment, as described in section IV.B.1. The purpose of the engineering analysis is to analyze the manufacturing cost and the performance of the covered equipment as rated by the test procedure. Examining methods to extend the life of walk-in equipment, including the impact of such methods on standards adopted by DOE, would complicate and create a significant impediment to completion of this rulemaking, without any clear prospect that it would affect the standards DOE ultimately adopts. For this reason, DOE has decided not to pursue this issue.

After considering all the comments it received on the design options, DOE is including the following design options in the NOPR analysis for panels, display doors, and non-display doors:

Panels

- Increased insulation thickness up to 6 inches
- Improved insulation material
- Improved framing material

Display Doors

- High-efficiency lighting
- Occupancy sensors
- Display and window glass system insulation performance
- Anti-sweat heater controls

Non-Display Doors

- Increased insulation thickness up to 6 inches
- Improved insulation material
- Improved panel framing material
- Display and window glass system insulation performance
- Anti-sweat heater controls
- No anti-sweat systems

b. Refrigeration

In the preliminary analysis, DOE included the following design options for the walk-in refrigeration system:

- High-efficiency compressors

- Improved condenser coil
- High-efficiency condenser fan motors
- Improved condenser fan blades
- Improved evaporator coil
- Improved evaporator fan blades
- Evaporator fan controls
- Floating head pressure
- Defrost controls

The preliminary analysis contained tables detailing each design option, including the cost of implementing each option and a description of the design option's properties. The discussion below sets forth comments received on these design options for refrigeration systems, as well as DOE's proposed approach in today's NOPR.

One option DOE considered was high-efficiency compressors. For example, DOE suggested using scroll compressors to represent the performance associated with higher efficiency compressors in walk-in applications. In response, Master-Bilt and Heatcraft commented that scroll compressors are not necessarily more efficient than other compressor types and are limited by their application and the prevalent conditions in which the compressor operates. (Master-Bilt, Public Meeting Transcript, No. 0045 at p. 1; Heatcraft, No. 0058.1 at p. 2) Heatcraft also stated that with increasing horsepower, fewer compressor types are available. (Heatcraft, No. 0069.1 at p. 1) The Joint Utilities added that for larger walk-in units, semi-hermetic compressors are more efficient than scroll types—except at low temperatures where, in their view, scroll compressors are more often utilized—but they did not provide information supporting the same. In addition, the Joint Utilities stated that hermetic compressors hold an added cost advantage over semi-hermetic compressors. (Joint Utilities, No. 0061.1 at pp. 6 and 10) With regard to the types of compressors used in the food service market, American Panel suggested that hermetic compressors were dominant and stated that semi-hermetic compressors' high initial cost made them less prevalent generally. (American Panel, No. 0048.1 at p. 9)

DOE conducted additional research on available compressors and found that the prevalence of some compressor types varied at certain sizes. DOE also ensured that its analysis accounted for the effect that different applications and conditions may have on the relative efficiency of compressor types. In particular, the NOPR analysis includes an evaluation of a wide range of refrigeration capacities, and DOE has separately evaluated the different compressor types available at each capacity point. DOE believes that this modified analysis adequately captures the performance of each compressor type at each size and set of operating conditions.

To obtain data on compressor performance, DOE's preliminary analysis relied on manufacturer Web sites and related product specification sheets and did not consider the effect of the return gas conditions. The compressor data were based on return gas conditions under which the individual compressors were rated. The Joint Utilities stated that the return gas conditions were inconsistent with the typical operating conditions of walk-ins. (Joint Utilities, Public Meeting Transcript, No. 0045 at p. 27 and No. 0061.1 at p. 11) In consideration of the Joint Utilities' comment, DOE investigated the effect of the return gas conditions on compressor performance and has updated the compressor characteristics using return gas conditions that are consistent with the rating conditions in AHRI 1250–2009, which are different from the rating conditions for individual compressors. The conditions are contained within AHRI 1250–2009 itself, which DOE has incorporated into its test procedure. 76 FR at 33631.

After considering the stakeholder comments and conducting further research, DOE expanded its initial compressor range beyond scroll compressors and hermetic compressors to now include semi-hermetic compressors in the list of compressor options in order to capture most of the market share. This was done specifically due to the varying compressor efficiencies at different operating temperatures, and the lack of availability of certain compressor types at all capacity ranges. For example, it is difficult to obtain hermetic compressors at capacities exceeding 30,000 Btu/h, so manufacturers may be more likely to use semi-hermetic compressors at these capacities as a lower-cost alternative to scroll compressors.

The preliminary TSD discusses the evaporator and condensing coil baseline and improved efficiency as coil size increases. In that analysis, DOE selected increased coil size as a design option because increasing the coil size corresponds to a drop in temperature difference, which would increase compressor capacity and result in lower normalized energy consumption.

DOE received several comments about heat exchanger coil size and the associated savings. The Joint Utilities, Manitowoc and Heatcraft commented that the analysis did not consider an increase in fan power with an increase in coil size. (Joint Utilities, Public Meeting Transcript, No. 0045 at p. 27 and No. 0061.1 at p. 6; Manitowoc, No. 0056.1 at p. 2; Heatcraft, No. 0058.1 at pp. 2 and 3) American Panel stated that increasing condenser coil size would also require an increase in evaporator coil size, while Manitowoc suggested that the coil heat transfer equation should use log-mean temperature. (American Panel, No. 0048.1 at p. 6; Manitowoc, No. 0056.1 at p. 2)

After carefully considering these comments, DOE modified its analysis by increasing fan power proportionally to coil size. DOE found through its analysis, however, that as coil size increases, the decrease in compressor power far exceeds the increase in fan power, which ultimately decreases the net energy consumption. As a result, DOE retained increased coil size as a design option in its analysis. DOE agrees with Manitowoc's comment that using log mean temperature difference is a more accurate way to calculate heat transfer because this method accounts for changes in air temperature and refrigerant temperature across the refrigerant coil rather than assuming that these temperatures are constant. DOE's analysis had used a simplified form of the heat transfer equations in the preliminary analysis, but now includes a log mean temperature difference in its analysis for the NOPR. In response to American Panel's comment about requiring an increase in evaporator coil with condenser coil, DOE has taken a complete system modeling approach in analyzing the refrigeration system's performance to capture any effects on the evaporator conditions from condenser coil changes. At this point, DOE believes that increasing the coil size of the condenser does not necessarily require an increase in coil size for the evaporator because the manufacturer would balance other aspects of the system to maintain the same capacity. DOE requests comment on this assumption, particularly from manufacturers who currently utilize larger condenser coils.

Condenser Fan Motors

In chapter 5 of the preliminary TSD, DOE discussed more efficient condenser fan motors as a viable design option. EPCA requires that walk-in condenser fan motors of less than 1 horsepower must use permanent split capacitor motors, electronically commutated motors, or three-phase motors. (42 U.S.C. 6313(f)(1)(F)) Permanent split capacitor (PSC) motors are less expensive and less efficient than electronically-commutated (EC) motors and are currently used by the majority of manufacturers. DOE also assumed the

same motor efficiencies for PSC and EC motors that were assumed in the ANSI/ARI Standard 1200–2006—that is, 29 percent and 66 percent respectively. (The analysis screened out three-phase motors as a design option based on utility to the consumer, as explained in section IV.B.2.b, although manufacturers may still use this technology to improve the overall efficiency of the equipment they manufacture.)

DOE received comments about the assumed efficiency of fan motors. Manitowoc commented that DOE's assumed efficiency for PSC motors was too low and should be about 50 percent, while Heatcraft stated that PSC motor efficiency would likely be between 45 and 55 percent, three-phase motor efficiency would be approximately 80 percent, and EC motor efficiency would range from 60 to 90 percent. (Manitowoc, No. 0056.1 at p. 2; Heatcraft, No. 0058.1 at p. 2 and No. 0069.1 at p. 2) The Joint Utilities suggested that the methodology of determining input power from efficiency ratings for small motors was inaccurate. (Joint Utilities, No. 0061.1 at p. 8) Heatcraft provided a list of parts to be added to the engineering analysis. (Heatcraft, No. 0069.1 at p. 1)

DOE has considered the suggestions of Manitowoc and Heatcraft regarding motor efficiency and has changed its assumptions for PSC motors to 50 percent and EC motors to 75 percent after researching currently available motors. Additionally, regarding comments received from Heatcraft about three-phase motors, DOE did not include three-phase motors as a design option or as part of the design of smaller baseline equipment due to adverse utility to the consumer and impracticability to manufacture, install and service, because many consumers do not have three-phase power sources; however, DOE assumed that larger baseline equipment would use three-phase motors. See section IV.B.2.b for more details. DOE also included in its analysis the fan motor parts Heatcraft identified after evaluating teardown data and conducting further analysis of those parts. In response to the Joint Utilities' comment that DOE should not determine input power from efficiency ratings, DOE has used this method as its best estimate for motor power consumption. DOE has not identified a more accurate methodology for determining input power and requests feedback on this issue.

Chapter 5 of the preliminary TSD presented several fan blade options for the evaporator and condenser fan blade design option. Responding to these options, Heatcraft suggested the inclusion of swept fan blades as they are more aerodynamic and reduce vibrations and noise that result in inefficiencies. In addition, it also suggested that motor efficiency is independent from fan blade efficiency because more efficient fan blades do not result in high efficiencies for motors and vice versa. Rather, the efficiency of each component is due to its own intrinsic characteristics. After considering Heatcraft's comment, DOE is continuing to treat the motor and fan blade options separately.

The preliminary analysis examined evaporator fan controls as a design option. The impacts of fan controls were analyzed consistent with the test procedure requirement that ''controls shall be adjusted so that the greater of a 25 percent duty cycle or the manufacturer default is used for measuring off-cycle fan energy. For variable-speed controls, the greater of 25 percent fan speed or the manufacturer's default fan speed shall be used for measuring off-cycle fan energy.'' Because of this requirement, DOE set a 75 percent reduction in off-cycle fan energy as the energy savings achieved for the fan control technology option. DOE did not differentiate between modulated fan controls and variable speed fan controls in the preliminary analysis. DOE received comments both on its characterization of the fan control design option and on the energy results for that design option. NEEA and NPCC expressed concern that DOE's analysis caused the evaporator fan control option to appear less cost-effective compared to other design options, possibly indicating that DOE underestimated its potential energy savings. (NEEA and NPCC, No. 0059.1 at p. 7) The Joint Utilities cited studies indicating that fan speed control is one of the most, if not the most, cost-effective design option for many refrigeration systems. (Joint Utilities, Public Meeting Transcript, No. 0045 at p. 28; No. 0061.1 at pp. 2 and 6) The Joint Utilities also criticized DOE's initial approach of not distinguishing between fan cycling and fan speed control. They indicated that the approach taken by DOE overly simplified the analysis, which then yielded considerably smaller projected savings for multiplex systems. Because of the complexity of the size ranges and system variations of these units, a more detailed analysis than the single design option used in the preliminary analysis is, in their view, required to sufficiently evaluate the potential energy savings from using a fan control system. They recommended that an analysis of fan speed controls include the benefit of operating at reduced fan speeds for the majority of the time the system operates. (Joint Utilities, No. 0061.1 at pp. 6 and 9) NEEA and NPCC agreed with DOE's approach insofar as fan controls that adjust envelope interior temperature conditions should be applied to every walk-in. (NEEA and NPCC, No. 0059.1 at p. 7)

Some interested parties also cautioned DOE about the unintended consequences of implementing different types of fan controls. The Joint Utilities stated that a fan duty-cycling control strategy would be unacceptable in many applications because of the increased likelihood of uneven temperatures and the related concern for perishable products. (Joint Utilities, No. 0061.1 at p. 9) Zero Zone stated that variable speed evaporator fan motors could prevent the walk-in from maintaining the desired product temperature. (Zero Zone, No. 0051.1 at p. 1) American Panel stated that if fan controls cause the compressor to run for longer periods, energy consumption will increase because the compressor draws more power than the fans. American Panel also recommended that DOE ensure that whatever standards it may propose, that air defrost evaporators still be able to defrost ice build-up on refrigeration coils during off-cycle periods using lower fan speeds. (American Panel, No. 0048.1 at p. 7)

One interested party commented on DOE's assumed cost of the fan control option. The Joint Utilities stated that the assumed cost of $300 for fan control would likely be lower, particularly for small walk-ins, because the EC motors have inherent variable speed capability and the microcontrollers used to control these motors can provide the required voltage signal to control the EC motors. (Joint Utilities, No. 0061.1 at p. 9)

To address these concerns, DOE has made several changes to its fan control analysis. DOE is now considering both modulated (fan cycling) and variable speed controls as potential design options. Modulated fan controls cycle the fans at 50 percent runtime at 100 percent speed when the compressor is off, while variable speed controls set the fan speed to 50 percent of maximum speed at 100 percent runtime when the compressor is off. DOE's analysis applies the commonly used fan power laws, which describe the relationship between power and speed during a fan's operation. A reduction in fan speed causes a reduction in fan power to the third power. For example, reducing speed to 50 percent of full speed reduces the power to 12.5 percent of full power. Thus, variable speed controls

would be expected to save more energy than modulated fan controls for the particular control strategies analyzed.

DOE applied both modulated fan controls and variable speed fan controls as a design option for all classes analyzed. DOE did not, however, consider controls that respond to specific box conditions because, as stated in the test procedure final rule, the impact of these controls would not be captured using the component-level approach, which analyzes refrigeration systems separately from envelope components. DOE notes that, as a result of the enhancements made to its analytical approach, the NOPR analysis indicates that modulated and variable speed fan controls would likely be among the primary options to improve walk-in refrigeration system efficiency.

DOE appreciates the concerns about fan controls raised by American Panel, the Joint Utilities, and Zero Zone. DOE's research does not indicate that air defrost would be adversely affected by fan controls. Therefore, air defrost would likely still be adequate with reduced fan speed. To address commenters' concerns about the potential effects of fan controls on food safety, DOE estimates that the outcome of using such controls would be equivalent to an overall 50 percent decrease in runtime (for a cycle control) or a 50 percent decrease in speed (for a variable-speed control) and has tentatively concluded that the impact of the controls it analyzed will be limited and not affect the maintenance of safe food temperatures. See chapter 5 for details. DOE requests comment from interested parties as to whether food temperatures would be adequately maintained in the specific control cases it has analyzed and, if not, what an appropriate control strategy would be. DOE seeks any data that interested parties can provide to show the relationship between fan controls and food temperatures. DOE also seeks information as to whether additional components are necessary to ensure food temperature, such as extra thermostats located in certain areas of the walk-in. To address American Panel's comment about compressor runtime, DOE does not expect compressor runtime to increase from the inclusion of fan control implementation because the fans run at full speed while the compressor is running and fan speed or cycling controls are activated only when the compressor is off. DOE also does not expect controls to increase the amount of time the compressor is off because the compressor cycles on based on the walk-in's interior temperature, which DOE believes will not be significantly affected by the fan control strategy modeled in the analysis.

Defrost Controls

In the preliminary analysis, DOE evaluated several defrost control options available in the market. DOE considered using time-initiated, time-terminated defrost as the baseline. The design option involved a generic defrost control that would result in half as many defrosts per day. Heatcraft and American Panel doubted whether existing defrost controls could achieve the 50 percent reduction in defrosts assumed in the preliminary analysis. (American Panel, No. 0048.1 at p. 7; Heatcraft, No. 0058.1 at p. 4) In addition, Heatcraft, American Panel and the Joint Utilities suggested DOE replace time termination with temperature termination in the base case. (Heatcraft, No. 0058.1 at p. 4; American Panel, No. 0048.1 at p. 7; Joint Utilities, Public Meeting Transcript, No. 0045 at p. 26) Heatcraft and the Joint Utilities also noted that defrost time should be dependent on system size to account for the greater surface area of larger units and suggested that the baseline defrost control strategy be a time-initiated, temperature-terminated scheme, which is the industry standard. (Heatcraft, No. 0058.1 at pp. 3–4; Joint Utilities, No. 0061.1 at p. 3)

In response to comments received about defrost control, DOE's analysis now applies a temperature-terminated defrost approach for all defrost control schemes (baseline or higher). The defrost cycle ends once the coil temperature reaches 45 °F. For the defrost design option, DOE is continuing to apply a generic defrost control that would reduce the number of defrosts per day. The magnitude of the reduction is set at 40 percent, which is less than the 50 percent level originally assumed in the preliminary analysis. DOE chose this reduced level because it would result in significant energy savings while still maintaining adequate defrost capability. Further details about the defrost control parameters are found in chapter 5 of the TSD.

Floating Head Pressure

In the preliminary analysis, DOE also considered floating head pressure as a design option. With floating head pressure, the compressor pressure and the saturated condensing temperature (SCT) float down to the minimum level at which the compressor can operate. DOE assumed that floating head pressure would allow the SCT to float down to 70 °F. DOE also assumed that the SCT would decrease at the same rate as the ambient temperature such that the system would maintain the same temperature difference (TD) between the SCT and the ambient air. This change resulted in a predicted reduction in energy consumption because compressors generally run more efficiently at a lower SCT. The capacity of the system was related to the SCT and the TD.

Some interested parties commented on DOE's assumptions relating to floating head pressure. Heatcraft disagreed with DOE's assumption that the TD would be constant as SCT decreases and stated that the TD increases as SCT decreases. To illustrate its point, Heatcraft calculated the TD of a system at an SCT of 115 °F and again at an SCT of 70 °F and found that the ratio of the condenser TD between these two SCT conditions would be approximately 1.19, not 1.0 (where a ratio of 1.0 would correspond to no change in TD as SCT decreases). This value was calculated using the total heat of rejection (THR) of the condenser. (Heatcraft, No. 0058.1 at p. 4) The Joint Utilities had several comments relating to the implementation of floating head pressure. They recommended that DOE account for the additional fan power required for floating head pressure, and stated that varying the speed of condenser fans as part of a floating head pressure control has effects on the system such as more stable operation of the expansion valve and less likelihood of compressor damage due to liquid refrigerant reaching the compressor. (Joint Utilities, No. 0061.1 at pp. 6 and 10) The Joint Utilities also identified two different head pressure control types that have an impact on projected energy savings: fan control or fan cycling and a condenser valve to maintain the minimum condensing temperature. (Joint Utilities, No. 0061.1 at p. 10) Finally, the Joint Utilities pointed out that if a lower initial or baseline SCT value is assumed, the estimated savings for floating head pressure will be less. (Joint Utilities, No. 0061.1 at p. 10)

To account for the suggestions made by commenters, DOE has implemented changes to its NOPR analysis of floating head pressure. First, DOE investigated the control methods identified by the Joint Utilities. In the current model used for the NOPR analysis, fan modulation is implemented in the baseline to maintain a fixed head pressure. When floating head pressure is implemented, a valve and accompanying controls are added to maintain a minimum condensing temperature. Regarding the comments on fan power submitted by the Joint Utilities, DOE agrees that at lower ambient temperatures, the

required fan airflow is higher when floating head pressure is implemented because the TD is smaller. DOE's current energy model calculates the fan power necessary to maintain adequate heat transfer when floating head pressure is implemented. DOE assumed that condenser fans would be modulated in the baseline; variable speed condenser fans are considered as a separate design option. DOE's model calculates the energy savings of variable speed condenser fans with or without floating head pressure implemented. The energy model does not capture increased stability in the expansion valve or the reduced possibility of compressor damage because the energy model attempts to capture the performance as rated by the test procedure, and for the reasons stated in the test procedure final rule, the test procedure established by DOE is designed to rate only certain aspects of the equipment—*e.g.,* AWEF and capacity. 76 FR 21580, 21597–21598 (April 15, 2011).

DOE also assumes that a system tested by the manufacturer would likely be a new system, which is unlikely to experience decreased stability in the expansion valve; therefore, DOE did not capture expansion valve stability in the energy model. The energy model also does not capture long-term compressor damage because DOE assumes the test procedure would be performed at the point of manufacture of the equipment, and would therefore not capture such damage to the compressor. Compressor replacement is, however, addressed in the life cycle cost analysis (see section IV.F.6). Any additional benefits that accrue due to reduced maintenance are also not captured in the engineering analysis.

DOE also acknowledges the Joint Utilities' observation that the savings for the floating head pressure option depends on the baseline SCT and DOE's energy modeling confirms their assertion that the floating head pressure option would appear to save less energy if the baseline SCT were lower. However, DOE chose certain baseline SCT values for each class that would be realistic considering the equipment rating conditions, as explained in section IV.C.4.b. To address Heatcraft's comment that TD would increase with decreasing SCT, DOE analyzed the total heat of rejection of sample systems using the specified temperatures in the test procedure and found an average TD ratio corresponding to each compressor type analyzed. DOE implemented the TD ratio in the engineering analysis. See chapter 5 of the TSD for more details on the floating head pressure design option. DOE requests comment on its assumptions and implementation of this option, particularly regarding the cost to implement various floating head pressure control schemes and the energy savings that would be achieved.

Refrigeration Summary

After considering all the comments it received on the design options, DOE is including the following design options in the NOPR analysis:

- Higher efficiency compressors
- Improved condenser coil
- Higher efficiency condenser fan motors
- Improved condenser and evaporator fan blades
- Ambient sub-cooling
- Evaporator and condenser fan control
- Defrost control
- Hot gas defrost
- Head pressure control

Each design option is explained in detail in chapter 5 of the TSD.

6. Cost-Efficiency Results

a. Panels and Doors

In the preliminary analysis, DOE plotted total energy consumption in kilowatt-hours per day versus the increasing cost of representative walk-in envelopes. Because DOE is proposing to set component level standards, each of the three main products that make up walk-in envelopes have independent cost-efficiency curves. For panels, DOE measured the U-factor, a measure of thermal conductivity expressed in British thermal units per hour-square foot-Fahrenheit (Btu/h-ft^2-F); that is, the heat conducted through the panel per unit time, per square foot of panel surface area, per degree Fahrenheit. A lower U-factor corresponds to less heat conducted through the panel, indirectly decreasing the energy use of the walk-in because the refrigeration system does not have to expend additional energy to remove heat from the walk-in. DOE plotted the decrease in U-factor versus the increase in cost of a single panel. For non-display doors and display doors, DOE plotted energy consumption in kWh/day versus the increasing cost of an individual non-display door. For a more detailed description of the engineering analysis results, see appendix 5A of the TSD.

b. Refrigeration

In the preliminary analysis, DOE chose refrigeration system sizes that best represented the market, but did not attempt to match the refrigeration systems to any particular envelope in the engineering analysis. DOE received several comments on the preliminary analysis regarding matching the refrigeration system to the envelope size. American Panel suggested that, because of their interdependence, refrigeration and walk-in size should be analyzed together. (American Panel, Public Meeting Transcript, No. 0045 at p. 115) NEEA, NPCC, Heatcraft, and American Panel recommended that the refrigeration system size match the envelope size. (NEEA and NPCC, No. 0059.1 at p. 9, Heatcraft, No. 0069.1 at p. 1, American Panel, No. 0048.1 at p. 4)

DOE is proposing to regulate the refrigeration system as an individual component in accordance with its proposed component-level approach, and is also analyzing the individual components of an envelope (panels and doors), rather than the entire envelope. For these reasons, DOE did not attempt to match refrigeration systems with any particular envelope size. Rather, DOE chose refrigeration system sizes for the analysis that capture the range of systems that might be used in a walk-in.

In the preliminary analysis, DOE plotted the cost-efficiency data points using normalized energy consumption for its engineering analysis. AHRI recommended using AWEF and commented that the normalized values favor design options, which, in its view, do not necessarily reduce energy consumption. The Joint Utilities believed that non-normalized values would be helpful to understand the analyses. (AHRI, No. 0055.1 at pp. 2–3; Joint Utilities, Public Meeting Transcript, No. 0045 at p. 171) Consistent with the test procedure final rule and AHRI's suggestion, DOE is using AWEF to construct its cost-efficiency curves. See 76 FR 21597–21598, 10 CFR 431.302.

In chapter 5, Appendix A of the preliminary TSD, DOE provided cost-efficiency curves for all the equipment classes. Numerous stakeholders requested that DOE provide more detail about the methodology behind the cost efficiency curves because they are concerned about the accuracy of these curves. (Emerson, Public Meeting Transcript, No. 0045 at p. 165; AHRI, Public Meeting Transcript, No. 0045 at p. 169 and No. 0055.1 at p. 2,4; Manitowoc, No. 0056.1 at p. 2 and Public Meeting Transcript, No. 0045 at p. 125) Additionally, Manitowoc suggested that a broader view of the industry's costs and sizes is required to improve the accuracy of the results (Manitowoc, Public Meeting Transcript, No. 0045 at p. 162)

DOE appreciates the stakeholder comments and notes that it has updated

its initial cost-efficiency curves based on changes to its analysis. DOE has provided more detail in this NOPR and the NOPR TSD about the calculation methodology used in the engineering analysis, particularly due to the publication of the test procedure final rule. DOE also updated its analysis with the most recent pricing data related to the costs of materials and purchased parts and adjusted the projected energy savings of certain design options as detailed in section IV.C.5.b.

c. Numerical Results

Table IV–8, Table IV–9, Table IV–10, and Table IV–11 present cost-efficiency data for panels, display doors, non-display doors, and refrigeration systems, respectively. For refrigeration systems, because of the large number of analysis points, DOE presents results for only one type of system, DC.L.O, in this notice. See appendix 5A of the TSD for complete cost-efficiency results.

TABLE IV–8—COST-EFFICIENCY RESULTS FOR PANELS

Class/size		Efficiency level						
		Baseline	1	2	3	4	5	6
SP.M.SML	Cost [$]	$54	$58	$61	$67	$73	$86	$231
	U-factor [Btu/h-ft-F]	0.082	0.046	0.040	0.032	0.027	0.024	0.011
SP.M.MED	Cost [$]	$153	$159	$165	$179	$192	$229	$615
	U-factor [Btu/h-ft-F]	0.061	0.043	0.038	0.030	0.025	0.024	0.011
SP.M.LRG	Cost [$]	$240	$247	$256	$276	$296	$354	$951
	U-factor [Btu/h-ft-F]	0.056	0.042	0.037	0.030	0.025	0.024	0.011
SP.L.SML	Cost [$]	$56	$61	$67	$73	$86	$231	.....
	U-factor [Btu/h-ft-F]	0.073	0.040	0.032	0.027	0.024	0.011	.....
SP.L.MED	Cost [$]	$159	$165	$179	$192	$229	$615	.....
	U-factor [Btu/h-ft-F]	0.053	0.038	0.030	0.025	0.024	0.011	.....
SP.L.LRG	Cost [$]	$249	$256	$276	$296	$354	$951	.....
	U-factor [Btu/h-ft-F]	0.050	0.037	0.030	0.025	0.024	0.011	.....
FP.L.SML	Cost [$]	$85	$93	$97	$104	$111	$270	.....
	U-factor [Btu/h-ft-F]	0.071	0.041	0.036	0.030	0.025	0.018	.....
FP.L.MED	Cost [$]	$176	$190	$195	$209	$222	$566	.....
	U-factor [Btu/h-ft-F]	0.059	0.039	0.035	0.029	0.024	0.015	.....
FP.L.LRG	Cost [$]	$301	$322	$331	$353	$374	$973	.....
	U-factor [Btu/h-ft-F]	0.054	0.039	0.035	0.028	0.024	0.014	.....

TABLE IV–9—COST-EFFICIENCY RESULTS FOR DISPLAY DOORS

Class/size		Efficiency level						
		Baseline	1	2	3	4	5	6
DD.M.SML	Cost [$]	$277	$274	$340	$423	$544	$710	$1,375
	Energy Use [kWh/day].	2.50	1.74	0.98	0.84	0.68	0.58	0.38
DD.M.MED	Cost [$]	$357	$354	$420	$530	$651	$870	$1,751
	Energy Use [kWh/day].	2.91	2.15	1.14	0.96	0.80	0.66	0.40
DD.M.LRG	Cost [$]	$470	$478	$544	$692	$813	$1,108	$2,291
	Energy Use [kWh/day].	3.76	2.78	1.43	1.18	0.99	0.81	0.46
DD.L.SML	Cost [$]	$509	$506	$627	$793	$960	$1,375	.....
	Energy Use [kWh/day].	5.22	4.34	4.14	2.73	2.02	1.66	.....
DD.L.MED	Cost [$]	$643	$640	$761	$980	$1,202	$1,751	.....
	Energy Use [kWh/day].	6.47	5.58	5.39	3.49	2.56	2.08	.....
DD.L.LRG	Cost [$]	$831	$839	$1,135	$1,432	$1,553	$2,291	.....
	Energy Use [kWh/day].	8.54	7.40	4.83	3.57	3.36	2.70	.....

TABLE IV–10—COST-EFFICIENCY RESULTS FOR NON-DISPLAY DOORS

Class/size		Efficiency level									
		Baseline	1	2	3	4	5	6	7	8	9
PD.M.SML	Cost [$]	$180	$184	$210	$214	$222	$273	$281	$487	$655	.....
	Energy Use [kWh/day].	0.30	0.27	0.22	0.22	0.21	0.17	0.16	0.04	0.02	.....
PD.M.MED	Cost [$]	$210	$214	$240	$245	$255	$306	$316	$522	$741	.....
	Energy Use [kWh/day].	0.32	0.28	0.24	0.23	0.22	0.18	0.17	0.05	0.03	.....
PD.M.LRG	Cost [$]	$265	$270	$296	$303	$316	$368	$381	$587	$904	.....

TABLE IV–10—COST-EFFICIENCY RESULTS FOR NON-DISPLAY DOORS—Continued

Class/size		Efficiency level									
		Baseline	1	2	3	4	5	6	7	8	9
	Energy Use [kWh/day].	0.36	0.31	0.27	0.25	0.24	0.20	0.19	0.06	0.04	.....
PD.L.SML	Cost [$]	$235	$240	$291	$342	$351	$359	$425	$553	$728	.....
	Energy Use [kWh/day].	7.08	6.96	6.52	6.26	6.23	6.20	6.07	6.01	5.98	.....
PD.L.MED	Cost [$]	$265	$270	$322	$373	$383	$393	$459	$587	$814	.....
	Energy Use [kWh/day].	7.82	7.69	7.25	6.99	6.95	6.92	6.79	6.72	6.67	.....
PD.L.LRG	Cost [$]	$322	$328	$380	$431	$445	$459	$524	$653	$978	.....
	Energy Use [kWh/day].	9.03	8.88	8.43	8.18	8.11	8.07	7.94	7.88	7.79	.....
FD.M.SML	Cost [$]	$356	$362	$388	$398	$417	$469	$489	$694	$1,119	.....
	Energy Use [kWh/day].	0.39	0.35	0.30	0.28	0.26	0.22	0.21	0.08	0.05	.....
FD.M.MED	Cost [$]	$574	$581	$647	$662	$692	$738	$768	$860	$1,225	$1,899
	Energy Use [kWh/day].	0.65	0.60	0.46	0.44	0.40	0.36	0.34	0.31	0.25	0.19
FD.M.LRG	Cost [$]	$719	$727	$793	$813	$853	$898	$938	$1,029	$1,394	$2,296
	Energy Use [kWh/day].	0.73	0.66	0.53	0.49	0.45	0.41	0.38	0.35	0.29	0.21
FD.L.SML	Cost [$]	$416	$423	$474	$526	$546	$566	$632	$760	$1,194	.....
	Energy Use [kWh/day].	10.25	10.08	9.63	9.38	9.29	9.23	9.10	9.03	8.92	.....
FD.L.MED	Cost [$]	$679	$688	$753	$845	$875	$905	$997	$1,225	$1,911	.....
	Energy Use [kWh/day].	13.71	13.49	12.58	12.13	11.99	11.90	11.67	11.55	11.35	.....
FD.L.LRG	Cost [$]	$828	$838	$904	$995	$1,035	$1,075	$1,167	$1,394	$2,310	.....
	Energy Use [kWh/day].	15.62	15.36	14.45	14.00	13.81	13.69	13.45	13.34	13.06	.....

TABLE IV–11—COST-EFFICIENCY RESULTS FOR REFRIGERATION SYSTEMS

Class/size		Efficiency level												
		Base-line	1	2	3	4	5	6	7	8	9	10	11	12
DC.L.O HER* 6 kBtu	Cost [$]	$1591	$1616	$1641	$1671	$1745	$1749	$1760	$1798	$1848	$1898	$2058	.....	.....
	AWEF Btu/Wh	2.40	2.62	2.81	2.97	3.30	3.31	3.34	3.43	3.56	3.62	3.65	.....	.....
DC.L.OHER 9 kBtu.	Cost [$]	$1720	$1745	$1770	$1800	$1876	$1881	$1919	$1969	$1980	$2144	$2194	.....	.....
	AWEF Btu/Wh	2.91	3.10	3.27	3.47	3.86	3.87	3.96	4.07	4.09	4.38	4.44	.....	.....
DC.L.O SCR 6 kBtu.	Cost [$]	$1838	$1863	$1888	$1918	$1992	$1996	$2034	$2084	$2095	$2250	$2300	.....	.....
	AWEF Btu/Wh	2.86	3.14	3.39	3.70	4.07	4.09	4.24	4.44	4.48	4.79	4.89	.....	.....
DC.L.O SCR 9 kBtu.	Cost [$]	$1944	$1969	$1999	$2024	$2100	$2105	$2143	$2193	$2204	$2381	$2531	$2581	.....
	AWEF Btu/Wh	3.70	3.98	4.35	4.64	5.11	5.13	5.28	5.48	5.52	5.86	6.15	6.25	.....
DC.L.O SCR 54 kBtu.	Cost [$]	$6938	$6968	$7018	$7068	$7188	$7288	$7312	$7362	$7512	$7594	$10312	$10337	$11062
	AWEF Btu/Wh	4.09	4.44	4.92	5.38	5.93	6.27	6.34	6.43	6.58	6.64	7.77	7.78	7.91
DC.L.O SEM 6 kBtu.	Cost [$]	$2095	$2120	$2145	$2175	$2248	$2253	$2291	$2341	$2352	$2402	$2555	.....	.....
	AWEF Btu/Wh	2.47	2.69	2.90	3.15	3.48	3.50	3.60	3.74	3.77	3.84	3.93	.....	.....
DC.L.O SEM 9 kBtu.	Cost [$]	$2270	$2295	$2320	$2350	$2426	$2430	$2468	$2518	$2666	$2677	$2727	.....	.....
	AWEF Btu/Wh	2.78	2.96	3.12	3.40	3.77	3.78	3.86	3.96	4.28	4.30	4.36	.....	.....
DC.L.O SEM 54 kBtu.	Cost [$]	$7776	$7806	$7856	$7906	$8006	$8129	$8208	$8258	$8340	$11254	$11720	$11804	.....
	AWEF Btu/Wh	3.36	3.63	3.99	4.32	4.74	5.24	5.36	5.43	5.47	6.37	6.52	6.54	.....
DC.L.O SEM 72 kBtu.	Cost [$]	$9772	$9802	$9877	$9952	$10075	$10175	$10225	$10304	$10427	$11091	$13999	$14083	.....
	AWEF Btu/Wh	3.41	3.70	4.11	4.50	4.96	5.36	5.44	5.53	5.58	5.79	6.71	6.72	.....

*HER indicates a hermetic compressor, SCR indicates a scroll compressor, and SEM indicates a semi-hermetic compressor.

D. Markups Analysis

This section explains how DOE developed the distribution channel and supply chain markups to determine installed costs for the end-users of refrigeration systems and envelope components.

In the preliminary analysis, DOE described different distribution channels for the two broadly defined segments of the WICF market: the food sales (grocery) segment and the food service segment for the purposes of

calculating markups. In the food sales segment, the refrigeration systems are predominantly unit coolers connected to multiplex condensing systems. In the food service and convenience store market segment, the refrigeration systems are mostly dedicated condensing systems. DOE acknowledged that walk-in units may also be assembled in the field, with key components sourced from different vendors through different channels. However, in the preliminary analysis, DOE conducted the markups analysis on complete walk-in systems and did not apply separate markups for different components. Consequently, DOE assumed in the preliminary analysis that the refrigeration system and the envelope followed identical distribution channels even if they were manufactured by a different set of manufacturers.

One interested party recommended that DOE include an additional distribution channel. Heatcraft commented that the refrigeration system manufacturers often sell directly to the envelope manufacturers, who integrate the refrigeration systems with the envelopes and then sell the assembled units. (Heatcraft, Public Meeting Transcript, No. 0045 at p. 187) Heatcraft identified this market segment as OEMs and observed that this important channel of distribution was not considered by DOE, even though 50 percent of the refrigeration system business is distributed through the OEM market segment.

The revised NOPR analysis uses component-level standards for specific envelope components and for the refrigeration systems. Because of this component-level standards approach, DOE conducts all the key analysis steps separately for the refrigeration systems and the selected envelope components in the NOPR analysis. As part of this approach, DOE includes a distinct OEM distribution channel in the markup analysis. Based on interviews with several manufacturers, DOE estimates that the percentage share of the aggregate shipments of refrigeration systems attributable to the OEM segment of the market is 55 percent for all dedicated condensing refrigeration systems, similar to the 50 percent share indicated by Heatcraft.

Another interested party commented on the relative shares of the different market segments DOE identified. In the preliminary analysis, DOE estimated that for walk-ins with dedicated condensing units, 50 percent of aggregate sales were for the food service segment and the remaining 50 percent were for the convenience and small grocery stores segment. American Panel commented that for walk-in equipment sold with dedicated condensing equipment, the share of the food service segment across the two broad market segments should be 80 percent and the share of the convenience and small grocery stores segment should be 20 percent. (American Panel, No. 0048.1 at p. 8) In the NOPR, DOE revised its shipment analysis as described in chapter 9 of the TSD and noted that for the walk-ins with dedicated condensing equipment, the relative shares for the food service segment and the convenience and small grocery stores segment are now 78 percent and 22 percent, respectively, compared to 50 percent each for these two segments estimated in the preliminary analysis. These new values closely match the percentage shares indicated by American Panel.

Several interested parties commented on the shares of different distribution channels across the market segments that DOE previously applied. In the preliminary analysis, DOE indicated that the percentage share of the aggregate shipments of refrigeration systems through refrigeration wholesalers was 15 percent for multiplex equipment and 57.5 percent for dedicated condensing equipment on an average basis for all the market segments. Heatcraft stated that the percentage share of the aggregate shipments of refrigeration systems through the refrigeration wholesalers is 50 percent. (Heatcraft, Public Meeting Transcript, No. 0045 at p. 284) Based on information gathered through interviews with manufacturers of refrigeration systems, DOE has revised its estimates for the percentage share of the aggregate shipments of refrigeration systems through wholesalers. For the NOPR, DOE revised these estimates to 42 percent for dedicated condensing systems and 45 percent for the unit coolers connected to a multiplex condensing system.

In the preliminary analysis, DOE assumed that the share of electronic commerce (E-commerce) resellers in the food service market for dedicated condensing systems is 10 percent. American Panel commented that this figure was too high and should be 1 percent or, at most, 2 percent. (American Panel, Public Meeting Transcript, No. 0045 at p. 195 and No. 0048.1 at p. 8) Manitowoc pointed out that E-commerce resellers often represent food service equipment distributors selling to territories outside the specific territory assigned to them by the manufacturer and that their sales could be considered distributor sales. In its view, if this aspect is considered, then the share of the E-commerce business estimated by DOE in the preliminary analysis is too high. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 195) NEEA and NPCC reinforced the observations made by American Panel and Manitowoc, and suggested that DOE adjust the markup analysis accordingly. (NEEA and NPCC, No. 0059.1 at p. 9) DOE agrees with Manitowoc's observation that the E-commerce share of total sales is essentially composed of sales through the distributor segment and, therefore, there is no need to identify this channel of distribution separately. As a result of this observation, DOE did not identify this as a separate distribution channel in the NOPR analysis.

American Panel noted that the distribution channel shares described by DOE for walk-ins with dedicated condensing equipment sold in the food service market segment are accurate for the national accounts and distributors under the current economic situation, but it expected to see the market share of the national chains increase to 20 percent with the economy improving in the next 2 to 3 years. (American Panel, Public Meeting Transcript, No. 0045 at p. 144) American Panel also pointed out that, for walk-ins with dedicated condensing equipment sold to the food service segment, the market share for contractors should be 5 percent instead of 10 percent. (American Panel, Public Meeting Transcript, No. 0045 at p. 194) In the NOPR markup analysis, DOE has factored American Panel's estimates and revised the corresponding market shares to 10 percent for the national chains and 5 percent for the contractors.

Regarding the values of the markup multipliers presented in chapter 6 of the preliminary TSD, several interested parties commented on the methodology for arriving at the multiplier. AHRI stated that, when multiple-stage markups (manufacturer, distributor, dealer, and contractor) are estimated separately and multiplied to estimate the overall markups, the errors in the different stages are compounded in the final result. (AHRI, No. 0055.1 at p. 3) AHRI suggested that DOE avoid compounding errors and instead use retail prices in the analysis. DOE notes that the current methodology of the markup analysis is standardized in DOE's economic analysis in its energy conservation rulemaking activities. A retail price analysis is not feasible, because a representative sample of direct end-user prices is difficult to obtain from distributors and contractors because pricing data are considered business-sensitive. Furthermore, these

parties often use aggregate markups on the entire contract and separate markups for labor and/or equipment installations cannot be established. Therefore, DOE continues to use a markup analysis in this NOPR.

Craig Industries commented that the mechanical contractor may not always purchase envelope components from the distributor, but can purchase them directly from the manufacturers and, therefore, the baseline markup for the mechanical contractor should not include the distributor markup. (Craig Industries, No. 0064.1 at p. 1) In the NOPR, DOE is proposing component-level standards for the envelope components and has revised the markup analysis accordingly. DOE assumes that the general contractors would purchase the envelope components directly from the manufacturer, and hence, did not include the markup percentages of the distributors in the estimated overall markups for sales through the contractor channel in the NOPR analysis.

Regarding the values of the markup multipliers presented in chapter 6 of the preliminary TSD, American Panel commented that the markup multiplier values were too high and should correspond to approximately 10–12 percent of the markup. (American Panel, Public Meeting Transcript, No. 0045 at p. 201) American Panel also questioned DOE's assumption that the markup multipliers for unit coolers connected to multiplex systems would be substantially lower than the multipliers for the dedicated condensing equipment, when both types of equipment move through the same channel of distribution. (American Panel, No. 0048.1 at p. 8) In response to the first comment, DOE notes that the markup multipliers obtained in the revised analysis are consistent with the markup multipliers derived for other refrigeration products that often share the same distribution channels with walk-in coolers and freezers. Therefore, DOE considers the markup multipliers to be representative of the industry. Regarding the second comment, DOE notes that the overall markup multipliers depend not only on the channels through which the products are sold, but also on the relative shares of sales of the distribution channels. Because unit coolers connected to multiplex condensing systems are predominantly used in food sales, and a larger percentage of such equipment is sold directly to contractors, the equipment would be expected to have lower weighted average markup multipliers. The NOPR analysis uses weighted average baseline markup multipliers for multiplex and non-multiplex equipment of 1.43 and 1.51, respectively.

One interested party commented on DOE's data sources. NEEA and NPCC recommended that, in view of the several comments DOE received on the markup analysis and ongoing restructuring and consolidation of the food retailing industry, DOE should obtain manufacturer assistance in re-crafting the markup estimates for each distribution channel. (NEEA and NPCC, No. 0059.1 at p. 9) In the NOPR analysis, DOE has revised many of its estimates of the shares of individual channels based on comments received from interested parties. Given their general reliability, in estimating the markup multipliers in specific distribution channels, DOE uses data from trade associations and economic census data from the U.S. Census Bureau. The NOPR analysis relies on the most recently available data to derive the markup multipliers.

Table IV–12 shows the overall weighted average baseline and incremental markups for sales of refrigeration systems and envelope components. Chapter 6 and appendix 6A of the TSD provide complete details of the methodology and data used in the estimation of the markup multipliers.

TABLE IV–12—OVERALL MARKUP MULTIPLIERS FOR ALL EQUIPMENT CLASSES

Equipment class	Markup multipliers	
	Baseline	Incremental
DC.M.I * ..... DC.L.I *	1.51	1.19
DC.M.O * ... DC.L.O *	1.51	1.19
MC.M ..... MC.L	1.43	1.25
SP.M ..... SP.L	1.16	1.09
DD.M ..... DD.L	1.41	1.29
PD.M ..... PD.L	1.16	1.09
FD.M ..... FD.L	1.16	1.09

* For DC refrigeration systems, markups apply to both capacity ranges.

E. Energy Use Analysis

The energy use analysis estimates the annual energy consumption of refrigeration systems serving walk-ins and the energy consumption that can be directly ascribed to the selected components of the WICF envelopes. These estimates are used in the subsequent LCC and PBP analyses (chapter 8 of the TSD) and NIA (chapter 10 of the TSD).

In the preliminary analysis, DOE estimated the annual energy consumption for a complete theoretical walk-in consisting of an envelope and a matched refrigeration system, each at a specific efficiency level, using a set of assumptions for product loading, duty cycle, and other associated conditions. In the NOPR, DOE is proposing energy consumption standards separately for the refrigeration systems and a selected set of envelope components: Panels, non-display doors, and display doors. Consequently, DOE revised the methodology for estimating the annual energy consumption to reflect the new approach.

A key change from the preliminary analysis methodology for estimating the annual energy consumption is that in the NOPR analysis, DOE is no longer matching the refrigeration systems to specific envelope sizes. The estimates for the annual energy consumption of each analyzed representative refrigeration system (see section IV.C.2) were reached by assuming that (1) the refrigeration system is sized such that it follows a specific daily duty cycle for a given number of hours per day at full rated capacity, and (2) the refrigeration systems produce no additional refrigeration effect for the remaining period of the 24-hour cycle. These assumptions are consistent with the present industry practice for sizing refrigeration systems. This methodology assumes that the refrigeration system is paired with an envelope that generates a load profile such that the rated hourly capacity of the paired refrigeration system, operated for the given number of run hours per day, produces adequate refrigeration effect to meet the daily refrigeration load of the envelope with a safety margin to meet contingency situations. Thus, the annual energy consumption estimates for the refrigeration system depends on the methodology adopted for sizing, the implied assumptions and the extent of oversizing. The sizing methodology adopted in this NOPR analysis is further discussed later in this section.

For the envelopes, the estimates of product and infiltration loads are no longer used in estimating energy consumption in the analysis because these factors are not intended to be mitigated by any of the component standards. DOE calculated only the transmission loads across the envelope components under test procedure conditions and combined that with the annual energy efficiency ratio (AEER) to arrive at the annual refrigeration energy consumption associated with the specific component. AEER is a ratio of the net amount of heat removed from

the envelope in Btu by the refrigeration system and the annual energy consumed in watt-hours using bin temperature data specified in AHRI 1250–2009 to calculate AWEF. The annual electricity consumption attributable to any envelope component is the sum of the direct electrical energy consumed by electrically-powered sub-components (e.g., lights and anti-sweat heaters) and the refrigeration energy, which is computed by dividing the transmission heat load traceable to the envelope component by the AEER metric, where the AEER metric represents the efficiency of the refrigeration system with which the envelope is paired.

In the preliminary analysis, DOE estimated aggregate refrigeration loads of three sizes of complete WICF envelopes in each of the four envelope classes (*i.e.,* storage and display coolers and freezers.) In the NOPR, given the component-level approach, DOE estimated the annual energy consumption per unit of the specific envelope components by calculating the transmission load of the component over 24 hours under the test procedure conditions, and then calculating the annual refrigeration energy consumption attributed to that component by applying an appropriate AEER value.

1. Sizing Methodology for the Refrigeration System

In the preliminary analysis, DOE calculated the required size of the refrigeration system for a given envelope by assuming that the rated capacity of the refrigeration system would be adequate to meet the refrigeration load of a walk-in cooler or freezer during the high-load condition. The load profile of WICF equipment that DOE used broadly followed the load profile assumptions of the industry test procedure for refrigeration systems—AHRI 1250–2009, Standard for Performance Rating of Walk-In Coolers and Freezers (''AHRI 1250–2009''). As noted earlier, that protocol was incorporated into DOE's test procedure. 76 FR 33631 (June 9, 2011).

As a result, the DOE test procedure incorporates an assumption that, during a 24-hour period, a WICF refrigeration system experiences a high-load period of 8 hours corresponding to frequent door openings, product loading events, and other design load factors, and a low-load period for the remaining 16 hours, corresponding to a minimum load resulting from conduction, internal heat gains from non-refrigeration equipment, and steady-state infiltration across the envelope surfaces. During the high-load period, the ratio of the envelope load to the net refrigeration system capacity is 70 percent for coolers and 80 percent for freezers. During the low-load period, the ratio of the envelope load to the net refrigeration system capacity is 10 percent for coolers and 40 percent for freezers. The relevant load equations correspond to a duty cycle for refrigeration systems, where the system runs at full design point refrigeration capacity for 7.2 hours per day for coolers and 12.8 hours per day for freezers. Specific equations to vary load based on the outdoor ambient temperature are also specified.

DOE received several comments on its duty cycle assumptions in the preliminary analysis. American Panel pointed out that the average envelope load hourly distributions for low and high loads used by DOE in the preliminary analysis represented a light loading condition and should be reversed, implying that a typical refrigeration system would experience 16 hours of high load and 8 hours of low load per day, rather than DOE's assumptions of 8 hours and 16 hours for high and low load, respectively. (American Panel, Public Meeting Transcript, No. 0045 at p. 212) For the restaurant market segment in particular, American Panel noted that the high-load and low-load periods would both typically be 12 hours each. (American Panel, No. 0048.1 at p. 8) American Panel also commented that its own heat load calculations use 18 hours of maximum refrigeration system run time for the freezers and noted that this is the industry standard. (American Panel, No. 0048.1 at p. 3) Manitowoc and Heatcraft, however, agreed with DOE's assumptions of the hourly load distributions for the high-load and low-load periods, which are consistent with AHRI 1250–2009. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 215; Heatcraft, Public Meeting Transcript, No. 0045 at p. 213) NEEA and NPCC noted that the duty cycle assumptions for the energy use analysis were credible and did not recommend any changes to this part of the analysis. (NEEA and NPCC, No. 0059.1 at p. 10) AHRI also commented that the assumptions made by DOE to calculate the duty cycle are acceptable for the analysis. (AHRI, No. 0055.1 at p. 3) Manitowoc noted that the envelope load assumptions are not supported with measurements from real life walk-in monitoring but are based on conservative sizing practices followed by the industry to ensure that even in worst-case situations, the walk-in will maintain the necessary temperature. (Manitowoc, No. 0056.1 at p. 3)

In light of the comments received from American Panel on current industry sizing practices, and Manitowoc's comment that actual duty cycles differ from the AHRI test procedure conditions, DOE tentatively concludes that the duty cycle assumptions of AHRI 1250–2009 should not be used for the sizing purposes because they may not represent the average conditions for WICF refrigeration systems for all applications under all conditions. DOE recognizes that test conditions are often designed to effectively compare the performance of equipment with different features under the same conditions.

For the energy use analysis, DOE revisited the duty cycle issue and found that the current industry practice for sizing the refrigeration system is based on providing a 10 percent safety margin multiplier to the calculated aggregate refrigeration load over a 24-hour daily cycle and assuming a nominal run time of 16 hours for coolers and 18 hours for freezers for sizing the refrigeration system. DOE's key assumption in the preliminary analysis of equating the refrigeration capacity to the high-box load is not practiced in the industry and DOE has made no attempt to model the peak load. The nominal run time varies only in special situations—such as when freezers use hot gas defrost or when the temperature of the evaporator coil is higher than 32 °F. Consequently, DOE adopted the industry practice described above for calculating the energy use and load characterization.

In this NOPR, DOE proposes a nominal run time of 16 hours per day for coolers and 18 hours per day for freezers to calculate the capacity of a ''perfectly'' sized refrigeration system. A fixed oversize factor is then applied to this size to calculate the actual runtime. With the oversize factor applied, DOE assumes that the runtime of the refrigeration system is 13.3 hours per day for coolers and 15 hours per day for freezers at full design point capacity. The reference outside ambient temperatures for the design point capacity conform to the AHRI 1250–2009 conditions incorporated into the DOE test procedure and are 95 °F and 90 °F for refrigeration systems with outdoor and indoor condensers, respectively.

DOE notes that the AHRI assumptions for high-load and low-load conditions were supported by some interested parties and acknowledges that the distribution of high-load and low-load hour assumptions could be relevant to the equipment energy consumption. DOE has observed, however, that the high-load situation is not taken into account by the industry in its standard sizing methods and would not represent

current industry practices. Thus, for the NOPR analysis, DOE has revised its sizing methodology to be consistent with its understanding of the current industry practice. DOE requests comment on the sizing methodology.

2. Oversize Factors

American Panel commented that DOE's preliminary analysis assumptions regarding duty cycle and sizing conflicted with the prevalent practice in the industry, which resulted in considerable oversizing of the refrigeration systems when paired with a given envelope. Oversizing leads to higher first cost estimates for the refrigeration equipment and distorts the LCC and PBP results because the energy savings are not commensurate with the first costs. American Panel further commented that because the refrigeration systems examined as part of the preliminary analysis are poorly matched to the envelopes, no meaningful conclusion can be drawn from the accompanying LCC, PBP, and NIA results. (American Panel, No. 0048.1 at p. 8 and p. 11) Regarding the annual energy calculations presented in chapter 7 of the TSD, American Panel did not believe that DOE properly matched the refrigeration systems and envelopes—which yielded an estimated 8 hours or less of runtime per day. In its view, this preliminary estimate is incorrect. (American Panel, No. 0048.1 at p. 9) American Panel also submitted additional documentation demonstrating its own methodology for matching the selected refrigeration system capacity to the estimated heat load of a walk-in expressed in Btu/h. (American Panel, No. 0048.1 at p. 9) DOE investigated further and found that the load calculation manuals and sizing software of several refrigeration system manufacturers supported American Panel's recommendation on the approach to sizing.

As stated previously, DOE observed that the typical and widespread industry practice for sizing the refrigeration system is to calculate the daily heat load on the basis of a 24-hour cycle and divide by 16 hours of runtime for coolers and 18 hours of runtime for freezers. DOE also found that it is customary in the industry to allow for a 10 percent safety margin to the aggregate 24-hour load resulting in 10 percent oversizing of the refrigeration system.

In the preliminary analysis, DOE considered a scaled mismatch factor in addition to the oversizing related to its duty cycle assumptions. DOE recognized that an exact match for the calculated refrigeration capacity may not be available for the refrigeration systems available in the market because most refrigeration systems are mass-produced in discrete capacities. The capacity of the best matched refrigeration system is likely to be the nearest higher capacity refrigeration system available. This consideration led DOE to develop a scaled mismatch factor that could be as high as 33 percent for the smaller refrigeration system sizes, and was scaled down for the larger sized units. In the preliminary analysis, DOE applied this mismatch oversizing factor to the required refrigeration capacity at the high-load condition to determine the required capacity of the refrigeration system to be paired with a given envelope.

DOE received multiple comments regarding the mismatch factor. Manitowoc pointed out that the mismatch factors used by DOE in the preliminary analysis are high. DOE assumed that compressors are available only in capacity increments of 6000 Btu/h but Manitowoc noted that compressors are available at capacity increments of 2000 Btu/h and 1500 Btu/h for medium- and low-temperature systems, respectively. (Manitowoc, No. 0056.1 at p. 3; Manitowoc, Public Meeting Transcript, No. 0045 at p. 220 and p. 222) American Panel pointed out that the maximum mismatch factor could be 15 percent. (American Panel, Public Meeting Transcript, No. 0045 at p. 220) Heatcraft stated that DOE's assumption that the sizes of refrigeration systems available in the market are at 0.5-ton intervals is not applicable for larger sized systems. For sizes from 5–10 horsepower, the compressors are available in 2.5-horsepower intervals, and for sizes from 10–30 horsepower, compressors are available in 5-horsepower intervals. (Heatcraft, No. 0069.1 at p. 2)

Based on these comments, DOE recalculated the mismatch factor because compressors for the lower capacity units are available at smaller size increments than what DOE assumed in the preliminary analysis. DOE also agrees with Manitowoc that for larger sizes, the size increments of available capacities are higher than size increments available for the lower capacities. DOE further noted as part of the revised analysis that under current industry practice, if the exact calculated size of the refrigeration system with a 10 percent safety margin is not available in the market, the user may choose the closest matching size even if it has a lower capacity, allowing the daily runtimes to be somewhat higher than their intended values. The designer would recalculate the revised runtime with the available lower capacity and compare it with the target runtime of 16 hours for coolers and 18 hours for freezers and, if this value falls within acceptable limits, then the chosen size of the refrigeration system is accepted and there is no mismatch oversizing.

DOE further examined the data of available capacities in published catalogs of several manufacturers and noted that the range of available capacities depends on compressor type and manufacturer. Furthermore, because smaller capacity increments are available for units in the lower capacity range and larger capacity increments are available for units in the higher capacity range, the mismatch factor is generally uniform over the range of equipment sizes. For the NOPR, DOE tentatively concluded from these data that a scaled mismatch factor linked to the target capacity of the unit may not be applicable, but that the basic need to account for discrete capacities available in the market is still valid. To this end, DOE is now applying a uniform average mismatch factor of 10 percent over the entire capacity range of refrigeration systems.

3. Product Load

The NOPR analysis does not include an explicitly modeled product load to determine the annual energy consumption. Instead, the annual energy consumption estimates for the refrigeration systems are based on industry practice duty cycle assumptions. This approach does not require any explicit modeling of the product load. However, for the shipment analysis of refrigeration systems, DOE expressed annual shipments and stocks in terms of installed refrigeration capacity (Btu/h). The shipments of the refrigeration system were linked to the shipments of envelopes, which required DOE to estimate the required refrigeration capacity for the units shipped. DOE included several assumptions about product loads in these calculations. These assumptions are discussed in the relevant section on shipment (Section IV.G of this NOPR).

4. Other Issues

DOE received one comment on the issue of the interaction of building air-conditioning systems with WICF systems installed within them. Ingersoll Rand stated that envelope improvements may not lead to significant energy savings because the load on the refrigeration systems of the WICF unit would be replaced by the load on the building air-conditioning system. DOE did not account for the

difference in overall energy use that could be directly attributed to the improvement of envelope components on the whole building cooling load and, correspondingly, any space-cooling energy impacts. At the same time, any envelope component improvements may also result in a decrease in the use of heating energy within the buildings. This impact on building heating and cooling loads would only occur for WICF units located indoors. The relative cooling-energy-use penalty to heating-energy-use benefit is a function of the climate of the region in which the building is located, the building type and size, and the placement of the WICF units within the building. The relative monetary benefits are also a function of the relative heating and cooling fuel costs. The quantification of the relative benefits impact would have required an extensive analysis of building climate-control performance, which is both unnecessary and outside the scope framed by Congress.

For the refrigeration systems, DOE calculated the annual energy consumption for all six classes of refrigeration systems at various capacity points with all available compressor options and at all efficiency levels for which results of engineering analysis were available. The annual energy consumption results were used as inputs to the LCC and PBP analyses. Based on the results of the LCC analysis, DOE selected the most cost-efficient combination of compressors and other components at a given AWEF level for a specific capacity point. Fourteen efficiency options were selected from the entire range of available AWEF values for each capacity point analyzed. To simplify further analysis, however, DOE chose two points from a set of four or five capacity points in each of the four dedicated condensing equipment classes, and one for each of the two multiplex condensing equipment classes. DOE used the shipment data to derive a shipment weighted AEER value for each TSL option for the refrigeration system. For the envelope components, DOE estimated the associated refrigeration energy at each of the TSL options and each level of efficiency of the components. The units of analysis were the unit area for the panels and each whole door for the doors. DOE added the direct electrical energy consumed for each of the doors at different efficiency levels to the refrigeration energy to arrive at the total annual energy consumption. The annual energy consumption results for the components were used as inputs to the LCC and PBP analyses for the components. Chapter 7 of the TSD shows the annual average energy consumption estimates by equipment class and efficiency level for both the refrigeration system and the components.

F. Life-Cycle Cost and Payback Period Analyses

DOE conducts LCC and PBP analyses to evaluate the economic impacts of potential energy conservation standards for walk-ins on individual consumers—that is, buyers of the equipment. As stated previously, DOE adopted a component-based approach for developing performance standards for walk-in coolers and freezers. Consequently, the LCC and PBP analyses were conducted separately for the refrigeration system and the envelope components: panels, non-display doors, and display doors.

The LCC is defined as the total consumer expense over the life of a product, consisting of purchase, installation, and operating costs (expenses for energy use, maintenance, and repair). To calculate the operating costs, DOE discounts future operating costs to the time of purchase and sums them over the lifetime of the product. The PBP is defined as the estimated number of years it takes consumers to recover the increased purchase cost (including installation) of a more efficient product. The increased purchase cost is derived from the higher first cost of complying with the higher energy conservation standard. DOE calculates the PBP by dividing the increase in purchase cost (normally higher) by the change in the average annual operating cost (normally lower) that results from the standard.

NEEA and NPCC suggested that, when estimating equipment lifetimes, DOE should consider both the economic and physical lifetimes of WICF equipment. (NEEA and NPCC, No. 0559.1 at p. 11) The physical lifetime refers to the duration before the equipment fails or is replaced, whereas the economic lifetime refers to the duration before the walk-in cooler and freezer equipment is taken out of service because the owner is no longer in business. In its energy conservation standards rulemakings, DOE does not typically consider the change of ownership of a distressed property due to business failure or insolvency of the first owner. The underlying assumption in this approach is that the higher efficiency equipment would continue to serve over its physical lifetime irrespective of ownership changes. Interested parties commented, however, that, in the case of walk-ins, the economic lifetime could be significantly lower. Owners at high risk of business failure or insolvency would be less likely to buy higher efficiency equipment because they likely would not see the long-term life cycle benefits of energy savings.

In response to these comments, DOE attempted to include alternative Weibull probability distributions in the NOPR analysis to capture the effects of a reduced economic lifetime of WICF equipment for small restaurants, but due to the increased complexity resulting from the component-level approach and lack of data on reduced lifetimes on account of change of ownership of walk-in equipment, DOE did not incorporate a shorter restaurant sector economic lifetime in the NOPR life cycle cost model. In many, if not most, cases when there is a change in ownership, equipment is not disassembled, but is sold ''as is.''

For any given efficiency level, DOE measures the PBP and the change in LCC relative to the base-case equipment efficiency levels. The base-case estimate reflects the market without new or amended energy conservation standards. For walk-ins, the base-case estimate assumes that newly manufactured walk-in equipment complies with the existing EPCA requirements and either equals or exceeds the efficiency levels achievable by EPCA-compliant equipment. Inputs to the economic analyses include the total installed operating, maintenance, and repair costs.

Inputs to the calculation of total installed cost include the cost of the product—which consists of manufacturer costs, manufacturer markups, distribution channel markups, and sales taxes—and installation costs. Inputs to the calculation of operating expenses include annual energy consumption, energy prices and price projections, repair and maintenance costs, product lifetimes, discount rates, and the year that compliance with standards is required. DOE created probability distributions for product lifetime inputs to account for their uncertainty and variability.

DOE developed refrigeration and envelope component spreadsheet models used for calculating the LCC and PBP. Chapter 8 of the TSD and its appendices provide details on the refrigeration and envelope subcomponent spreadsheet models and on all the inputs to the LCC and PBP analyses.

Table IV–13 summarizes DOE's approach and data used to derive inputs to the LCC and PBP calculations for both the preliminary TSD and the changes made for today's NOPR. The

subsections that follow discuss the initial inputs and methods and the changes DOE made for the NOPR.

For refrigeration systems, DOE analyzed all possible compressor technology options available for a given capacity of the refrigeration system. From the results of the individual compressor technology LCC analysis, DOE developed LCC savings plots in which the LCC savings over the LCC cost at the lowest total installed price option was plotted against the refrigeration system efficiency metric (AWEF). The LCC savings plots for the individual compressor technologies were superimposed into a single plot. A full range of optimal technology options were obtained by choosing the compressor technology available from the suite of available technologies that can reach a given efficiency level with the highest calculated LCC savings. The series of technology choices over the entire range of AWEF values from baseline to the highest achievable efficiency level obtained in this manner comprise the optimal path in developing higher efficiency equipment.

TABLE IV–13—SUMMARY OF INPUTS AND METHODS IN THE LCC AND PBP ANALYSIS *

Inputs	Preliminary analysis	Changes for the NOPR
Installed Costs		
Equipment Cost	Derived by multiplying manufacturer cost by manufacturer and retailer markups and sales tax, as appropriate.	Included factor for estimating price trends due to manufacturer experience.
Installation Costs	Based on RS Means Mechanical Cost Data 2009. Assumed no change with efficiency level.	Based on RS Means Mechanical Cost Data 2012. Assumed no change with efficiency level.
Operating Costs		
Annual Energy Use	DOE calculated the average annual energy use for each WICF envelope class matched with outdoor condenser systems using a load profile described in AHRI 1250–2009 (8 hours of high load and 16 hours of low load per day).	Daily load profile of the refrigeration system revised to 13.3 hours runtime per day for coolers and 15 hours for freezers, at full rated capacity and at outside air temperatures corresponding to the reference rating temperatures.
Energy Prices	EIA (Energy Information Administration). Form EIA–861 for 2006.	Source for Commercial and Industrial Retail Prices of Electricity: Form EIA–826 Database Monthly Electric Utility Sales and Revenue Data (EIA–826 Sales and Revenue Spreadsheets). www.eia.doe.gov/cneaf/electricity/page/eia826.html. Accessed September 30, 2012.
Energy Price Trends	Forecasted using *AEO2009* price forecasts	Forecasts updated using *AEO2013.*
Repair and Maintenance Costs.	Annualized repair and maintenance costs of the combined system were derived from RS Means 2009 walk-in cooler and freezer maintenance data. Doors and refrigeration systems were replaced during the lifetime.	Revised to RS Means 2012 walk-in cooler and freezer maintenance data and maintenance data; maintenance and repair costs for the refrigeration system and the envelope components were individually estimated.
Present Value of Operating Cost Savings		
Equipment Lifetime	Based on manufacturer interviews. Variability: characterized using Weibull probability distributions.	Revised to reflect stakeholder comments.
Discount Rates	Based on the 2009 commercial refrigeration equipment final rule (72 FR 1092); vary across commercial building types.	Based on Damodaran Online, October 2012.
Compliance Date	2015	2017.

* References for the data sources mentioned in this table are provided in the sections following the table or in chapter 8 of the TSD.

1. Equipment Cost

To calculate consumer equipment costs, DOE multiplied the MSPs from the engineering analysis by the supply-chain markups described above (along with sales taxes). DOE used different markups for baseline products and higher efficiency products because, as discussed previously, DOE applies an incremental markup to the MSP increase associated with higher-efficiency products.

On February 22, 2011, DOE published a notice of data availability (NODA, 76 FR 9696) stating that DOE may consider improving its regulatory analysis by addressing equipment price trends. Consistent with the NODA, DOE examined historical producer price indices (PPI) for refrigeration equipment in general and found both positive and negative short-term real price trends. Over the historical long term DOE found slightly negative time real price trends. Therefore, DOE assumes in its price forecasts for this NOPR that the real prices of refrigeration equipment decrease slightly over time. DOE performed a sensitivity analysis of the NPV results for refrigeration equipment to the observed range of uncertainty in this long term price trend. DOE projected the price of the panels and doors using constant real 2012$ prices (See chapter 8 and chapter 10 of the TSD). DOE is aware that there have been significant changes in both the regulatory environment and equipment technologies during this period that create analytical challenges for estimating longer-term product price trends from the product-specific PPI data. DOE performed price trend sensitivity calculations to examine the dependence of the analysis results on different analytical assumptions. A more detailed discussion of price trend modeling and calculations is provided

in Appendix 8D of the TSD. DOE invites comment on methods to improve its equipment price forecasting, as well as any data supporting alternate methods.

2. Installation Cost

Installation cost includes labor, overhead, and any miscellaneous materials and parts needed to install the equipment. For the preliminary analysis, DOE derived baseline installation costs for walk-in coolers and freezers from data in RS Means Mechanical Cost Data 2009.

DOE estimated installation costs separately for panels, non-display doors, and display doors. Installation costs for panels were calculated per square foot of area while installation costs for non-display doors were calculated per door. Display door installation costs were omitted and assumed to be included in the panel installation costs for display walk-ins. DOE assumed that display doors are either installed by the assembler or manufacturer of the walk-in unit, and the installation costs for the display doors are included in the ''mark-up'' amounts for the OEM channel.

For the NOPR analysis, DOE included refrigeration system component installation costs based on RS Means Mechanical Cost Data 2012. Refrigeration system installation costs included separate installation costs for the condensing unit and unit cooler. American Panel commented that these units are installed simultaneously by the same installation crew and quoted as a combined price. (American Panel, Public Meeting Transcript, No. 0045 at p. 246 and No. 0048.1 at p. 9) RS Means 2012 provides these installation costs separately, although the installation activities may be performed by the same crew. DOE proposes to be consistent with the approach of the cost data source because this approach permits one to estimate the installation costs of many combinations of unit coolers and condensing units.

In the preliminary analysis, DOE did not distinguish between installation costs for indoor and outdoor systems. Manitowoc stated that indoor and outdoor systems would likely incur different installation costs. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 245) Installation cost differences between indoor and outdoor condensing units were not reported in the RS Means data because the costs shown are based only on unit capacity. DOE assumed that the installation costs reported in the RS Means data are based on a weighted average of outdoor and indoor units—accordingly, DOE used identical installation costs for indoor and outdoor condensing units.

3. Annual Energy Consumption

To estimate the annual energy consumption, DOE assumed that the installed refrigeration capacity is 20 percent larger than the refrigeration load calculated in the sizing methodology. The prevailing industry practice is to recommend that the rated capacity for refrigeration equipment selection includes a 10 percent ''safety factor''. DOE chose to use a somewhat higher oversizing factor to account for the differences between the sizes calculated, using load estimation software programs, and the discrete sizes available in the market (that is, the mismatch factor). To determine annual energy consumption, DOE calculated, using the industry practice described above, that a refrigeration system with the selected oversizing factor would be required to run 13.3 hours per day for coolers and 15 hours per day for freezers at full rated capacity at the reference outside air temperatures to meet the aggregate refrigeration load of the paired walk-in envelope. These time periods were determined from DOE's sizing methodology, as discussed in section IV.E.1. DOE used reference temperatures of 90 °F and 95 °F for indoor and outdoor condensing refrigeration systems, respectively, which is consistent with the standard rating conditions incorporated by DOE from AHRI 1250–2009.

4. Energy Prices

DOE calculated average commercial electricity prices using Form EIA–826 Database Monthly Electric Utility Sales and Revenue Data (EIA–826 Sales and Revenue Spreadsheets) (*www.eia.doe.gov/cneaf/electricity/page/eia826.html;* accessed September 30, 2012). DOE calculated an average national commercial price by (1) estimating an average commercial price for each utility by dividing the commercial revenues by commercial sales; and (2) weighting each utility by the number of commercial consumers it served in that state, across the nation. For the preliminary TSD, DOE used the electricity price data from 2009. DOE updated the NOPR analysis using 2012 data.

5. Energy Price Projections

To estimate energy prices in future years for the preliminary TSD, DOE multiplied the average state energy prices described above by the forecast of annual average commercial energy price indices developed in the Reference Case from *AEO2013,* which forecasted prices through 2040.[17] AHRI supported DOE's approach for estimating current and future energy prices. (AHRI, No. 0055.1 at p. 3) DOE did not change its general approach, but today's NOPR analysis updates the initial energy price forecasts using *AEO2013,* which has an end year of 2035.[18] To estimate the price trends after 2035, DOE used the average annual rate of change in prices from 2026 to 2035.

6. Maintenance and Repair Costs

DOE calculated both maintenance and repair costs for the analysis. Maintenance costs are associated with maintaining the equipment operation, whereas repair costs are associated with repairing or replacing components that have failed in the refrigeration system and the envelope (i.e. panels and doors). In the preliminary analysis, DOE considered only general maintenance costs (*e.g.,* checking and maintaining refrigerant charge levels, checking settings, and cleaning heat exchanger coils) and lighting maintenance activities. The NOPR analysis applies the same lighting maintenance assumptions for display doors with lights as DOE previously applied during the preliminary analysis phases. The remaining data on general maintenance for an entire walk-in were apportioned between the refrigeration system and the envelope doors. Based on the descriptions of maintenance activities in the RS Means 2012 Facilities Maintenance and Repair Cost Data (available on CD–ROM) and manufacturer interviews, DOE assumed that the general maintenance associated with the panels is minimal and did not include any maintenance costs for panels in its analysis. RS Means 2012 data provided general maintenance costs for display and storage walk-ins.

In response to this approach, American Panel suggested that DOE contact the Commercial Food Equipment Service Association (CFESA) to obtain additional maintenance and repair information. (American Panel, No. 0048.1 at p. 8) At American Panel's recommendation, DOE contacted CFESA, who explained that they did not have the information requested.

Of the total annual maintenance costs for a walk-in unit, which ranges from $170–$262, DOE assumed $150 would

[17] The spreadsheet tool that DOE used to conduct the LCC and PBP analyses allows user0s to select price forecasts from either AEO's High Economic Growth or Low Economic Growth Cases. Users can thereby estimate the sensitivity of the LCC and PBP results to different energy price forecasts.

[18] U.S. Energy Information Administration. *Annual Energy Outlook 2013.* May 2013. U.S. Energy Information Administration: Washington, DC.

be spent on the refrigeration system and the rest would be spent on the display and passage doors of the envelope. DOE made this assumption as part of its preliminary analyses based on comments and research that pointed to this value as the likely amount that would need to be expended to cover refrigeration system-related costs. Maintenance costs were assumed to be the same across small, medium, and large door sizes in the case of both non-display doors and display doors. (DOE derived the envelope-related costs as the difference between the total maintenance costs for a walk-in and the assumed maintenance costs for the refrigeration system.) As stated previously, annual maintenance costs for the envelope wall and floor panels were assumed to be negligible and were not considered.

Interested parties commented on maintenance costs associated with refrigerant leakage and refrigerant charge. Emerson stated that DOE's estimated maintenance costs should account for higher refrigerant costs due to higher leakage rates and other issues in systems with higher refrigerant charge. (Emerson, Public Meeting Transcript, No. 0045 at p. 238) However, Emerson also commented that higher refrigerant costs could lead to the use of refrigerant leakage-reduction devices that offset the increased repair costs due to higher refrigerant charge and loss. (Emerson, Public Meeting Transcript, No. 0045 at p. 239) DOE did not receive any data for refrigeration maintenance costs, but based on the comments from Emerson, DOE assumes as part of the NOPR analysis that the $150 maintenance cost for a refrigeration system would include expenses related to refrigerant charge maintenance costs. DOE seeks data from interested parties on refrigerant charge maintenance costs applicable to walk-ins.

Other interested parties commented on potential climate change legislation. AHRI suggested that DOE study the impact of climate change legislation on the future availability and price of HFC refrigerants. (AHRI, No. 0055.1 at p. 3) Emerson also said that any future cap-and-trade bill would increase refrigerant costs significantly. (Emerson, Public Meeting Transcript, No. 0045 at p. 238) NEEA and NPCC suggested that refrigerant leakage and climate change responses should be evaluated in a manner that seeks to reduce refrigerant leakage rather than focusing solely on managing refrigerant replacement costs, particularly since maintenance costs are rising. (NEEA and NPCC, No. 0059.1 at p. 10) DOE acknowledges the concerns of interested parties regarding the effect of climate change legislation on refrigerant leakage and refrigerant costs. DOE does not speculate on pending legislation, which is outside the scope of this rulemaking.

DOE also updated its methodology for determining repair costs for the NOPR in response to earlier comments. In the preliminary analysis, DOE assumed that both the unit cooler and the condensing unit of the refrigeration system are replaced when the refrigeration system fails. Master-Bilt commented that repairing a failed refrigeration system typically would require replacement of the compressors, not the entire system, and that approximately five percent of refrigeration systems would require a compressor replacement during a 10-year span. (Master-Bilt, Public Meeting Transcript, No. 0045 at p. 287) American Panel agreed and noted that, when a refrigeration system fails the entire refrigeration system is not typically replaced; rather, only compressors or fan motors are replaced. (American Panel, Public Meeting Transcript, No. 0045 at p. 11) After carefully considering these comments, DOE assumed for the NOPR analysis that 5 percent of systems require compressor replacement and 10 and 15 percent of systems require fan motor replacement for evaporators and condensers, respectively, over the lifetime of the system. Aftermarket prices for fan motors and compressors were obtained from data collected during the engineering analysis and multiplied by a trade channel markup. DOE estimated installation costs using the RS Means Mechanical Cost Data 2012 and calculated the total repair cost per occasion of replacement. DOE then calculated the annualized repair costs by multiplying the discounted total replacement cost per occasion by the replacement lifetime percentage.

Under this approach, the NOPR analysis factored repair costs for lighting repairs pertaining to the lighting of the display doors. Data from the RS Means Electrical Cost Data 2012 were used to obtain the labor installation cost for lighting replacements. For refrigeration systems, DOE observed that estimated repair costs often increased with increasing efficiency levels, particularly for higher-efficiency compressors and fan motors.

In the preliminary analysis, DOE assumed that annualized maintenance and repair costs were constant across all efficiency levels. Manitowoc and Master-Bilt stated that maintenance and repair cost increases across efficiency levels should not be negligible because more efficient equipment is more complex and may have design options that lead to the incorporation of additional or more expensive parts, which would cost more to maintain and replace. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 241; Master-Bilt, No. 0046.1 at p. 1) Heatcraft agreed that maintenance and repair costs may increase with higher efficiency levels, stating that more efficient equipment would incur higher maintenance and repair costs because higher efficiency evaporator and condenser coils are larger and heavier, making them more difficult and costly to maintain. (Heatcraft, No. 0069.1 at p. 1) AHRI stated that larger evaporator and condenser coils require more refrigerant and concluded that the maintenance and cost repair differences across efficiency levels are evident. (AHRI, No. 0055.1 at p. 3 and 4) NEEA and NPCC stated, however, that there are no data available to support the contention that the complexity of electronics systems used in the controls of higher efficiency equipment leads to higher maintenance costs. (NEEA and NPCC, No. 0059.1 at p. 10)

In the NOPR analysis, DOE considered these comments and examined whether each design option would have higher maintenance and repair costs associated with it. As stated earlier, DOE agreed with comments made by Master-Bilt and American Panel on repair costs and found that certain design options that entail substitution of either evaporator and condenser fan motors or higher efficiency compressors would likely incur higher maintenance and repair costs because of the higher cost of these components. The NOPR analysis accounts for these observations. In summary, DOE believes that repair costs will increase with efficiency level whereas all non-lighting maintenance costs will not increase with efficiency level.

7. Product Lifetime

In the preliminary analysis, DOE estimated an average product lifetime of 15 years for envelopes and 7 years for refrigeration systems. The NOPR analysis alters this approach by estimating lifetimes for the individual components analyzed, instead of the entire envelope. DOE estimated an average lifetime of 15 years for panels and 14 years for display and non-display doors. DOE also revised the average refrigeration system lifetime to 12 years. Weibull distributions were derived around average lifetime estimates to obtain specific failure rates at each year of equipment life. See chapter 8 of the NOPR TSD for further

details on the method and sources DOE used to develop product lifetimes.

8. Discount Rates

In calculating LCC, DOE applies discount rates to estimate the present value of future operating costs. DOE did not have sufficient information in preparing its preliminary analysis to derive discount rates for walk-ins. Instead, DOE used discount rates from the 2009 commercial refrigeration equipment final rule as a surrogate to approximate the rates that would apply to walk-ins. 72 FR at 1123 (January 9, 2009). For the NOPR, DOE derived the discount rates for the walk-in cooler and freezer equipment analysis by estimating the cost of capital for a large number of companies similar to those that could purchase walk-in cooler and freezer equipment and then sampling them to characterize the effect of a distribution of potential customer discount rates. The cost of capital is commonly used to estimate the present value of cash flows to be derived from a typical company project or investment. Most companies use both debt and equity capital to fund investments, so their cost of capital is the weighted average of the cost to the company of equity and debt financing. Average discount rates (real) in these updated analyses by service building type are as follows:

- Grocery: 3.7 percent
- Food service: 3.9 percent
- Convenience Store: 5.0 percent
- Restaurant: 6.2 percent
- Other Food Service: 3.8 percent

DOE estimated the cost of equity financing by using the Capital Asset Pricing Model (CAPM).[19] The CAPM, among the most widely used models to estimate the cost of equity financing, assumes that the cost of equity is proportional to the amount of systematic risk associated with a company. The cost of equity financing tends to be high when a company faces a large degree of systematic risk, and it tends to be low when the company faces a small degree of systematic risk.

See chapter 8 of the TSD for further details on the development of commercial discount rates.

9. Compliance Date of Standards

EPCA prescribes that DOE establish performance-based standards for walk-ins by 2012. (42 U.S.C. 6313(f)(4)(A)) The standards apply to equipment manufactured beginning on the date 3 years after the final rule is published unless DOE determines, by rule, that a 3-year period is inadequate, in which case DOE may extend the compliance date for that standard by an additional 2 years. (42 U.S.C. 6314(f)(4)(B)) In the absence of any information indicating that 3 years is inadequate, DOE proposes a compliance date for the standards of 2017. Therefore, DOE calculated the LCC and PBP for walk-in coolers and freezers under the assumption that compliant equipment would be purchased in the year when compliance with the new standard is required—2017. DOE seeks comments and information on the adequacy of the 3-year compliance date.

10. Base-Case and Standards-Case Efficiency Distributions

To accurately estimate the share of consumers who would likely be impacted by a standard at a particular efficiency level, DOE's LCC analysis considers the projected distribution of product efficiencies that consumers purchase under the base case (*i.e.,* the case without new energy efficiency standards). DOE refers to this distribution of product efficiencies as a base-case efficiency distribution. DOE examined the range of standard and optional equipment features offered by manufacturers. For refrigeration systems, DOE estimated that 75 percent of the equipment sold under the base case would be at DOE's assumed baseline level—that is, the equipment would comply with the existing standards in EPCA, but have no additional features that improve efficiency. The remaining 25 percent of equipment would have features that would increase its efficiency. While manufacturers could have many options, DOE assumed that the average efficiency level of this equipment would correspond to the efficiency level achieved by the baseline equipment with the first design option in the sequence of design options in the engineering analysis ordered by their relative cost-effectiveness. DOE estimated that for panels and non-display doors, 100 percent of the equipment sold under the base case would consist of equipment at DOE's assumed baseline level—that is, minimally compliant with EPCA. For cooler display doors, DOE assumed that 25 percent of the current shipments are minimally compliant with EISA and the remaining 75 percent are higher-efficiency (45 percent are assumed to have LED lighting, corresponding to the first efficiency level above the baseline in the engineering analysis, and 30 percent are assumed to have LED lighting plus anti-sweat heater wire controls, corresponding to the second efficiency level above the baseline). For freezer display doors, DOE assumed that 80 percent of the shipments would be minimally compliant with EPCA and the remaining 20 percent have LED lighting, corresponding to the first efficiency level above the baseline. (See Section IV.C and chapter 5 of the TSD for a discussion of the efficiency levels and design options in the engineering analysis). The current analysis assumes that all consumers purchase only the minimally compliant equipment from 2017 on, when the walk-in cooler and freezer standard is in effect. DOE requests comment on the distribution of product efficiencies in the absence of standards, particularly with respect to the magnitude of market penetration of any specific higher-efficiency technologies. For further information on DOE's estimate of base-case efficiency distributions, see chapter 8 of the TSD.

11. Inputs to Payback Period Analysis

The payback period is the number of years that it takes the consumer to recover the additional installed cost of more efficient products, compared to baseline products, through energy cost savings. The simple payback period does not account for changes in operating expense over time or the time value of money. Payback periods that exceed the life of the product mean that the increased total installed cost is not recovered in reduced operating expenses (based on the first year's estimated operating cost).

The inputs to the PBP calculation are the total installed costs to the consumer of the equipment for each efficiency level and the average annual operating expenditures for each efficiency level in the first year. The PBP calculation uses the same inputs as the LCC analysis, except that discount rates are not used.

Interested parties raised several concerns regarding the LCC and PBP analyses. American Panel commented that the LCC and PBP presented in the preliminary analysis may be inaccurate because the refrigeration systems were not properly matched to the walk-in envelope, and the refrigeration system would be oversized for food safety and have a shorter run time. American Panel recommended that DOE select the refrigeration system capacity based on the heat load of the envelope size to achieve realistic LCC and PBP results. (American Panel, No. 0048.1 at p. 8) To account for this possibility, the current analysis now assumes that the refrigeration system is oversized by 20 percent over the aggregate refrigeration load of the walk-in unit.

[19] Harris, R.S. Applying the Capital Asset Pricing Model. UVA–F–1456. Available at SSRN: *http://ssrn.com/abstract=909893*.

American Panel submitted several comments relating to PBP issues for specific market segments. During the public meeting, American Panel commented that small business owners, such as non-chain restaurants or independent food service operators, generally attempt to avoid higher first costs due to the uncertainty of business success, while food service franchisees can afford to consider a longer term view of future savings. (American Panel, Public Meeting Transcript, No. 0045 at p. 252) American Panel cited data from the National Restaurant Association indicating that approximately 70 percent of all restaurants and 90 percent of small restaurants that open in the same building as a previously failed business fail in the first year due to insufficient up-front capital. American Panel predicted from these data that increased equipment costs resulting from new energy standards would have a serious negative impact on the small business restaurant owner, especially during the first year of restaurant operation, and that these entities would be able to sustain equipment efficiency improvements with a payback period of only 1 year or less. (American Panel, No. 0048.1 at p. 10) Owners and operators of franchised restaurant chains could afford to consider a longer payback period (*e.g.,* 2 years or more). (American Panel, Public Meeting Transcript, No. 0045 at p. 254)

DOE will continue to use the standard LCC and PBP methods to convey the economic impacts of energy efficiency standards on walk-ins. DOE recognizes the particular PBP considerations of various market segments, however, including small businesses and independent restaurants. In preparing this NOPR, DOE examined the ''business lifetime'' (also referred to as the ''economic lifetime''), which is an issue prevalent in the restaurant market sector. According to submitted comments, the economic lifetime of WICF equipment used in certain businesses may significantly differ from the operational lifetime. This issue could potentially impact the LCC and NIA analyses and is further discussed in section IV.G.1.b of this document. The walk-in lifetime details are also discussed in chapter 8 of the TSD.

12. Rebuttable-Presumption Payback Period

As noted above, EPCA, as amended, establishes a rebuttable presumption that a standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product that complies with an energy conservation standard level will be less than three times the value of the consumer's first-year energy (and, as applicable, water) savings derived as a result of the standard, as calculated under the test procedure in place for that standard. (42 U.S.C. 6295(o)(2)(B)(iii)) For each considered efficiency level, DOE determined the value of the first year's energy savings by calculating the quantity of those savings in accordance with the applicable DOE test procedure, and multiplying that amount by the average energy price forecast for the year in which compliance with the new standard would be required.

American Panel commented that the 3-year PBP established in EPCA should be decreased to 1 or 1.5 years at the most. (American Panel, No. 0048.1 at p. 11) DOE acknowledges the economic impacts on small businesses resulting from implementing energy efficiency standards but has maintained the 3-year PBP guideline as an initial step for determining economic justification, consistent with 42 U.S.C. 6295(o). However, DOE routinely conducts a full economic analysis that considers the full range of impacts to the consumer, manufacturer, nation, and environment and will consider other applicable criteria in determining whether a proposed standard is economically justified, including impacts on small businesses. For the results of DOE's detailed analysis of economic impacts on commercial customers and manufacturers, see sections V.B.1 and V.B.2.

For the NOPR analysis, DOE calculated a rebuttable presumption payback period at each TSL for WICF equipment. Rather than using distributions for input values, DOE used discrete values and, as required by EPCA, based the calculation on the assumptions in the DOE WICF test procedure. As a result, DOE calculated a single rebuttable presumption payback value, rather than a distribution of payback periods. Table IV–14 and Table IV–15 show the rebuttable presumption payback periods at TSL 4 for refrigeration systems and envelope components, respectively.

TABLE IV–14—WICF REFRIGERATION SYSTEMS REBUTTABLE PAYBACK PERIOD AT TSL 4

Equipment class	Compressor type analyzed	Rebuttable payback period
DC.M.I, < 9,000	SEM	4.7
DC.M.I, ≥ 9,000	SCR	1.8
DC.M.O, < 9,000	SEM	3.9
DC.M.O, ≥ 9,000	SCR	3.1

TABLE IV–14—WICF REFRIGERATION SYSTEMS REBUTTABLE PAYBACK PERIOD AT TSL 4—Continued

Equipment class	Compressor type analyzed	Rebuttable payback period
DC.L.I, < 9,000	SCR	2.1
DC.L.I, ≥ 9,000	SCR	2.3
DC.L.O, < 9,000	SCR	1.7
DC.L.O, ≥ 9,000	SCR	3.1
MC.M		0.8
MC.L		0.7

TABLE IV–15 WICF ENVELOPE COMPONENTS REBUTTABLE PAYBACK PERIOD AT TSL 4

Equipment class	Equipment size	Rebuttable payback period
SP.M	Small	5.3
	Medium	5.2
	Large	5.1
SP.L	Small	3.1
	Medium	3.8
	Large	4.1
FP.L	Small	3.8
	Medium	4.6
	Large	5.1
DD.M	Small	2.5
	Medium	2.2
	Large	1.9
DD.L	Small	N/A
	Medium	N/A
	Large	0.4
PD.M	Small	6.2
	Medium	6.1
	Large	6.0
PD.L	Small	4.7
	Medium	4.7
	Large	4.6
FD.M	Small	6.0
	Medium	6.0
	Large	5.9
FD.L	Small	3.5
	Medium	2.4
	Large	2.4

While DOE examined the rebuttable-presumption criterion, it considered whether the standard levels considered are economically justified through a more detailed analysis of the economic impacts of these levels consistent with the approach laid out in 42 U.S.C. 6295(o)(2)(B)(i). The results of this analysis serve as the basis for DOE to evaluate the economic justification for a potential standard level (thereby supporting or rebutting the results of any preliminary determination of economic justification).

G. National Impact Analysis—National Energy Savings and Net Present Value

The NIA assesses the national energy savings (NES) and the net present value (NPV) of total consumer costs and savings that would be expected to result

from the new energy conservation standards. (''Consumer'' in this context refers to customers of the product being regulated.) The NES and NPV are analyzed at specific efficiency levels separately for the refrigeration systems and components of the envelope (panels, non-display doors, and display doors). DOE calculates the NES and NPV based on projections of annual equipment shipments, along with the annual energy consumption and total installed cost data from the energy use and LCC analyses. For the NOPR analysis, DOE forecasted the energy savings, operating cost savings, product costs, and NPV of consumer benefits for products sold from 2017 through 2073—the year in which the last standards—compliant equipment shipped during the 30-year analysis period beginning in 2017 operates.

DOE evaluates the impacts of the new standards by comparing base-case projections with standards-case projections. The base-case projections characterize energy use and consumer costs for each equipment class in the absence of any new energy conservation standards. DOE compares these projections with projections characterizing the market for each equipment class if DOE adopted the new standard at specific energy efficiency levels (that is, the TSLs or standards cases) for that equipment class. For the base case forecast, DOE considered a mix of two levels of efficiency for the refrigeration systems and a single efficiency level for the components, except for cooler display doors as noted in Table IV–16. For the standards cases, DOE considered a ''roll-up'' scenario in which DOE assumes that product efficiencies that do not meet the standard level under consideration would roll-up to meet the new standard level, and those already above the proposed standard level would remain unaffected.

DOE uses a Microsoft Excel spreadsheet model to calculate the energy savings and the national consumer costs and savings from each TSL. The NOPR TSD and other documentation that DOE provides during the rulemaking helps explain the models and how to use them and also allow interested parties to review DOE's analyses. The NIA spreadsheet model uses average values as inputs (as opposed to probability distributions of key input parameters from a set of possible values).

For the current analysis, the NIA used projections of energy prices and commercial building starts from the *AEO2013* Reference case. In addition, DOE analyzed scenarios that used inputs from the *AEO2013* Low Economic Growth and High Economic Growth cases. These cases have higher and lower energy price trends compared to the Reference case, as well as higher and lower commercial building starts, which result in higher and lower walk-in shipments to new commercial buildings. NIA results based on these cases are presented in appendix 10E of the NOPR TSD.

Table IV–16 summarizes the inputs and key assumptions DOE used for both the preliminary analysis and NOPR with respect to the NIA analysis. Discussion of these inputs and changes follows the table. See chapter 10 of the NOPR TSD for further details.

TABLE IV–16—SUMMARY OF INPUTS AND KEY ASSUMPTIONS FOR THE NATIONAL IMPACT ANALYSIS

Inputs	Preliminary analysis	Changes for the NOPR analysis
Shipments	Annual shipments from the shipments model for complete walk-in units.	Annual shipments from the shipments model calculated separately for refrigeration systems and components.
Compliance Date of Standard	2015	2017.
Base-Case Forecasted Efficiencies	No efficiency distributions assumed for the base case and the current baseline level was assumed to represent the market for the forecasted shipments of complete walk-in systems.	Refrigeration systems: For EISA * shipments, 75 percent of shipments are assumed to be at the baseline and 25 percent of shipments are assumed to be equivalent to the first efficiency level in the engineering analysis. Panels and non-display doors: For EISA shipments, 100 percent of shipments are assumed to be at the baseline. Display doors: For EISA shipments, 25 percent of cooler display doors are assumed to be at the baseline and 75 percent are higher-efficiency (45 percent with LED lighting and 30 percent with LED lighting and lighting controls); and 80 percent of freezer doors are assumed to be at the baseline and 20 percent are higher-efficiency (with LED lighting).
Standards-Case Forecasted Efficiencies	No efficiency distributions assumed for the standards case. A single efficiency level was assumed to represent the market for the forecasted shipments of complete walk-in systems.	No efficiency distributions assumed for standards compliant shipments. Shipped efficiencies for the forecasted shipments of refrigeration systems and components are represented by a roll up to the minimum standard level being analyzed.
Annual Energy Consumption per Unit	DOE calculated the average annual energy use for each WICF envelope class matched with outdoor condenser systems using a load profile described in AHRI 1250–2009 (8 hours of high load and 16 hours of low load per day).	DOE changed the daily load profile of the refrigeration system to 13.3 hours runtime per day for coolers and 15 hours for freezers, at full rated capacity corresponding to the reference rating outside air temperatures.
Total Installed Cost per Unit	Manufacturer's selling price is estimated from Engineering Analysis. Installation costs are based on RS Means Mechanical Cost Data 2009. Assumed no change with efficiency level.	Updated to RS Means Mechanical Cost Data 2012.

TABLE IV–16—SUMMARY OF INPUTS AND KEY ASSUMPTIONS FOR THE NATIONAL IMPACT ANALYSIS—Continued

Inputs	Preliminary analysis	Changes for the NOPR analysis
Annual Energy Cost per Unit	Annual Energy consumption per unit was multiplied by the Annual energy cost. Costs were discounted and summed over the analysis period for the net present value calculations.	No change.
Repair and Maintenance Cost per Unit	Annualized repair and maintenance costs of the combined system were derived from RS Means 2009 walk-in cooler and freezer maintenance data. Doors and refrigeration systems could be replaced during the lifetime of the envelope.	Updated to RS Means 2012 walk-in cooler and freezer repair and maintenance data; repair and maintenance costs for the refrigeration system and the envelope components were estimated separately.
Energy Prices	Forecasted using *AEO2009* price forecasts	Updated to *AEO2013* forecasts.
Energy Site-to-Source Conversion Factor	Varies yearly and is generated by NEMS–BT (2009); applied from 2014 through 2045.	Updated to modified NEMS–BT** (2012), and applied from 2017 through 2073.
Discount Rate	3% and 7% real	No change.
Present Year	Future expenses discounted to 2010	Future expenses discounted to 2013.

* EISA 2007 amended EPCA to establish prescriptive standards for walk-in coolers and freezers manufactured on or after January 1, 2009. EISA shipments refer to the shipments complying with these prescriptive standards. This is in contrast to pre-EISA shipments, which would refer to shipments before 2009 when there was no Federal energy efficiency standard in place.
** Site-to-source factors modified by Lawrence Berkley National Laboratories.

American Panel noted that the NIA results in the preliminary analysis were not meaningful because the refrigeration system capacities were not properly matched to the walk-in envelope. As stated earlier in the LCC and PBP sections, American Panel contended that DOE should select the refrigeration system capacity based on the envelope heat load to make the economic analyses realistic. (American Panel, No. 0048.1 at p. 11) In the NOPR, DOE conducted the NIA analysis for the refrigeration systems and the selected envelope components independent of each other and then combined the results to arrive at the trial standard levels. This approach did not directly pair the walk-in units with the matched capacity refrigeration system because minor inconsistencies in the matching of individual units could have large effects on the overall NIA results, as noted by American Panel. Rather, the NOPR analysis involved combining the results in the aggregate to arrive at a more accurate estimate of overall energy savings across the range of covered equipment.

1. Shipments

Forecasts of product shipments are used to calculate the national impacts of standards on energy use, NPV, and future manufacturer cash flows. DOE developed shipment forecasts for refrigeration systems and envelope components based on an analysis of growth trends of specific building types housing the walk-in units. In DOE's shipments model, shipments of walk-in units and their components are driven by new purchases and stock replacements due to failures. The envelope component model and refrigeration system shipments model take an accounting approach, tracking market shares of each equipment class and the vintage of units in the existing stock. Stock accounting uses product shipments as inputs to estimate the age distribution of in-service product stocks for all years. The age distribution of in-service product stocks is a key input to calculations of both the NES and NPV because operating costs for any year depend on the age distribution of the stock. DOE also considers the impacts on shipments from changes in product purchase price and operating cost associated with higher energy efficiency levels.

American Panel, NEEA and NPCC suggested that DOE contact the National Association of Food Equipment Manufacturers (NAFEM) and major refrigeration system manufacturers such as Heatcraft and Russell to obtain shipment information. (American Panel, Public Meeting Transcript, No. 0045 at pp. 274–275; NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 281) DOE contacted NAFEM, which provided DOE with copies of that organization's ''Size and Shape of the Industry'' reports. These reports contain data on the annual sales of walk-in units in the food service sector for 2002–2010. DOE analyzed the data received from NAFEM and also obtained other data from manufacturer interviews and other sources. DOE used these data to develop equipment class size share distributions, and are documented in the current shipment models.

a. Share of Shipments and Stock Across Equipment Classes

In response to the shipments analysis results in the preliminary analysis, DOE received several comments regarding the share of shipments and stock across equipment classes, dedicated condensing and multiplex systems, indoor and outdoor systems, cooler and freezer envelopes, and envelope sizes.

In the preliminary analysis, DOE estimated that 46 percent of the existing stock of walk-in systems is served by multiplex systems. American Panel commented that the ratio between multiplex to dedicated condensing refrigeration systems was too high and stated that, historically, 68 percent of their sales are for dedicated condensing refrigeration systems. American Panel suggested that DOE's estimate of the share of stocks of dedicated condensing refrigeration systems should be 70 percent. (American Panel, Public Meeting Transcript, No. 0045 at pp. 192 and 275; American Panel, No. 0048.1 at p. 4) Heatcraft supported this observation by stating that multiplex medium temperature refrigeration system stock share should be only 15 percent. (Heatcraft, Public Meeting Transcript, No. 0045 at p. 269)

DOE considered these comments and re-examined its analyses in developing its revised analysis for the NOPR. As part of this revised analysis, DOE developed a shipment model that provided the key inputs required by the shipment models for the envelope components and refrigeration systems. Based on this shipment analysis, DOE estimated that dedicated condensing units account for approximately 70 percent of the refrigeration market and

the remaining 30 percent consists of unit coolers connected to multiplex condensing systems. DOE estimated that medium temperature unit coolers connected to multiplex systems account for about 25 percent of the shipments and stock. Regarding American Panel's comment on the relative shares of stock between the multiplex and the dedicated condensing refrigeration systems shown in the preliminary TSD (Table 3.2.8), DOE noted that Table 3.2.8 addressed shipments and not refrigeration system stock data. (American Panel, Public Meeting Transcript, No. 0045 at p. 269)

DOE received two comments regarding the stock share for outdoor and indoor dedicated condensing refrigeration systems. Heatcraft stated that a 30 percent share for outdoor dedicated condensing refrigeration systems was a reasonable assumption for DOE's economic analyses. (Heatcraft, Public Meeting Transcript, No. 0045 at p. 268) Manitowoc stated that the share of indoor dedicated condensing refrigeration systems should be higher than predicted, approximately 10 percent. (Manitowoc, Public Meeting Transcript, No. 0045 at p. 274) DOE considered these comments in light of other available data and estimated for the NOPR analysis that approximately 66 percent and 3 percent of the shipments and stocks of the refrigeration systems are accounted for by the outdoor and indoor dedicated condensing refrigeration systems, respectively.

Regarding the relative shares of stock or shipment between walk-in coolers and freezers, American Panel commented that DOE's estimates of 70 percent and 30 percent shares for cooler and freezer envelopes, respectively, were reasonable. (American Panel, Public Meeting Transcript, No. 0045 at p. 275) DOE has slightly adjusted these estimates in the NOPR shipment model to 71 percent (coolers) and 29 percent (freezers) based on updated calculations and data.

NEEA and NPCC stated that DOE correctly apportioned walk-ins by business type in the preliminary analysis, but noted that significant market shifts are taking place in the grocery and convenience store sectors. (NEEA and NPCC, No. 0059.1 at p. 11) NEEA and NPCC did not elaborate on the significance or nature of the market shifts. American Panel stated that DOE's estimate of twice as many large walk-in coolers as small walk-in coolers seemed inaccurate, and stated it would provide data. (American Panel, Public Meeting Transcript, No. 0045 at p. 293) American Panel then submitted a written comment with its own historical shipment data showing that walk-in cooler and freezer shipments for small, medium, and large units are 40 percent, 56 percent, and 4 percent, respectively, which differs significantly from DOE's estimates of 14 percent, 58 percent, and 28 percent for small, medium, and large units, respectively, in the preliminary analysis. (American Panel, No. 0048.1 at p. 11) In the NOPR analysis, DOE adjusted its estimates based in part on American Panel's feedback. For the NOPR, DOE estimated that size distributions of stocks and shipments of walk-in units are 52 percent, 40 percent, and 8 percent for small, medium, and large, respectively.

b. Lifetimes and Replacement Rates

As discussed in the previous section on LCC and PBP analyses, the preliminary analysis assumed an envelope lifetime of approximately 15 years. American Panel agreed with DOE's 15-year lifetime estimate for the envelopes. (American Panel, Public Meeting Transcript, No. 0045 at p. 283) Kysor mentioned that the envelope lifetime could vary depending on the traffic within it. For example, an 8- to 10-year envelope lifetime can be expected if pallet jack or forklifts are used in the walk-in, while a longer envelope lifetime is likely if activity is limited to foot traffic or lighter hand trucks. (Kysor, Public Meeting Transcript, No. 0045 at p. 287) Master-Bilt suggested that most envelopes have a 20-year lifetime. (Master-Bilt, No. 0046.1 at p. 1) American Panel concurred with the 5 percent replacement rate for walk-in cooler and freezer envelopes, which corresponds to a 20-year lifetime. (American Panel, No. 0048.1 at p. 11) AHRI commented that based on its own experience, it believes envelope wall and floor panels tend to have a longer lifetime—12 to 25 years would be typical—but provided no data in support of this view. (AHRI, No. 0055.1 at p. 4) Hill Phoenix noted that failure of envelope components is usually evident by visual inspection, and panels would not usually fail from condensation or ice formation in the insulation. (Hill Phoenix, No. 0066.1 at p. 3) Given that most of these comments provided only anecdotal evidence and not supporting data, DOE continues to assume a 15-year average lifetime for panels in the current analysis.

DOE assumed the typical lifetime of envelope doors to be 5 years in the preliminary analysis. American Panel commented that the door replacement rate of 5 years is not supported by its in-house data, which show a door replacement rate of 5 percent, with the door lasting throughout the walk-in cooler and freezer envelope lifetime. (American Panel, No. 0048.1 at p. 9) In addition, American Panel stated that the number of replacement non-display doors represented 5 percent of their annual door shipments, which is inconsistent with the assumption that doors only last 5 years. (American Panel, Public Meeting Transcript, No. 0045 at p. 14 and p. 284) In light of these comments on the door replacement rates, DOE has revised its assumptions of door lifetimes to more closely match envelope lifetimes. The NOPR shipment model assumes an average lifetime of approximately 14 years for both display and non-display doors.

For refrigeration systems, DOE assumed an average lifetime of 7 years in the preliminary analysis. Master-Bilt stated that refrigeration system lifetimes were comparable to the envelope lifetime of approximately 20 years—it estimated that refrigeration system lifetimes would be about 80–100 percent of envelope lifetimes. (Master-Bilt, Public Meeting Transcript, No. 0045 at p. 287) Master-Bilt also stated that a 15 percent replacement rate for the refrigeration systems, which corresponds to a lifetime of 7 years, is too high, and actual replacement rates should be only half as much. (Master-Bilt, No. 0046.1 at p. 1) AHRI stated that a typical mechanical equipment lifetime is between 8 and 12 years. (AHRI, No. 0055.1 at p. 4) Master-Bilt also mentioned that the economy has reduced the frequency at which walk-in coolers and freezers are completely replaced with new equipment because of the high cost. Instead, existing equipment is often being refurbished with users typically replacing only one or a few individual components. (Master-Bilt, No. 0046.1 at p. 1) Master-Bilt also stated that doors are the most commonly repaired or replaced envelope component, while the most common replacement part for a refrigeration system is the compressor. It noted that only 5 percent of refrigeration systems require replacement compressors over a 10-year span. (Master-Bilt, Public Meeting Transcript, No. 0045 at p. 287) American Panel agreed that the entire refrigeration system is not typically replaced and only a compressor or fan motor is replaced when the system fails. Consequently, American Panel disagreed with the 15 percent average replacement rate used in the preliminary analysis for the refrigeration systems and suggested DOE use a refrigeration system replacement rate of

10 percent. (American Panel, No. 0048.1 at p. 11) In view of the comments received from interested parties, DOE revised its assumption of the average lifetime of the refrigeration system to 12 years, corresponding to a replacement rate of about 8 percent.

In the preliminary analysis, DOE assumed a higher replacement rate for refrigeration systems than for envelopes. American Panel commented that DOE's estimated shipment ratio of 3 to 1 between refrigeration systems and envelopes was too high and that a more appropriate shipment ratio between refrigeration systems and envelopes would be about 1.3 to 1. (American Panel, Public Meeting Transcript, No. 0045 at p. 192 and No. 0048.1 at p. 4) As explained, in the NOPR shipment model, the refrigeration system lifetime has been revised downward from 15 to 12 years. (DOE has retained the 15-year lifetime for envelopes.) In the revised shipment model, refrigeration system replacements account for about 30–41 percent of all refrigeration system shipments. While this estimate exceeds the suggested shipment ratio of 1.3, DOE believes that the average lifetimes of walk-in envelopes and refrigeration systems, which are based on manufacturer interviews and stakeholder comments, are reasonable.

NEEA and NPCC stated that economic lifetimes are different from physical lifetimes and suggested that DOE use both economic and physical lifetimes depending on the building type in which the walk-in cooler and freezer resides. (NEEA and NPCC, No. 0059.1 at p. 11) The physical lifetime refers to the duration before the equipment fails or is replaced, whereas the economic lifetime refers to the duration before the walk-in cooler and freezer equipment is taken out of service because the owner is no longer in business. In the event of an economic lifetime failure, however, a WICF would likely not leave the national stock, but would instead be sold to a third party, which would represent a transfer of goods and would not impact WICF shipments or stock at a national level. For a more detailed discussion of economic lifetimes see life-cycle cost discussion in section IV.F.7.

c. Growth Rates

The preliminary analysis used a shipments growth rate of approximately 2 percent. Several interested parties commented on this assumption. American Panel agreed with DOE's assumption that walk-in growth will match growth seen in building stock square footage. (American Panel, No. 0048.1 at p. 11) Others stated that the preliminary analysis shipment growth rate was overestimated. AHRI, NEEA and NPCC predicted that the walk-in market would be flat and any growth would be less than 1 percent. (AHRI, No. 0055.1 at p. 4; NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 292) Master-Bilt, NEEA and NPCC stated that the shipment analysis should use a maximum growth rate of 1 percent. (Master-Bilt, No. 0046.1 at p.1; NEEA and NPCC, Public Meeting Transcript, No. 0045 at p. 292) One stakeholder stated that its business has grown annually at a simple rate of 10 percent, although it added that this may not be representative and may have been driven by gaining market share from other manufacturers. (American Panel, Public Meeting Transcript, No. 0045 at pp. 290–291) American Panel suggested that NAFEM may provide walk-in growth rates across industry. American Panel observed that shipments grow about 7 percent in normal financial times; however, they can decline 10 percent per year during a recession. In particular, the restaurant sector business has dropped by 60 percent while walk-in cooler and freezer business in the school sector has grown. (American Panel, No. 0048.1 at p. 11) Considering these stakeholder comments, DOE modeled its growth rate projections for the NOPR analysis using the commercial building floor space growth rates from the AEO 2013 NEMS–BT model.

d. Other Issues

DOE developed a core shipment model for estimating the annual shipments and stocks of complete WICFs that formed the basis for the shipment analysis of refrigeration systems and envelope components. DOE expressed annual shipments and stocks of refrigeration systems in terms of installed refrigeration capacity (Btu/h) which required DOE to estimate the required refrigeration capacity for the WICF units shipped. As part of the process, product loads were estimated for different envelope sizes and types.

In the preliminary analysis, product load estimates were central to the annual energy consumption projections and were presented in the same context. American Panel stated that while the product-specific heat and product pull-down temperature values used in the preliminary analysis were correct, it disagreed with the product-loading values assumed for various types of equipment. American Panel suggested that the product-loading estimates should be 2 pounds per cubic foot for small coolers and 1 pound per cubic foot for medium and large coolers (not 4 and 2 respectively, as DOE had assumed), and 1 pound per cubic foot for small, medium, and large freezers (not 1 for small freezers and 0.5 for medium and large freezers, as DOE had assumed). (American Panel, Public Meeting Transcript, No. 0045 at p. 209) Master-Bilt stated that it is difficult to have product load assumptions that are valid for all applications and DOE should explicitly state that the product load assumptions currently used are valid only for specific situations but may not necessarily be representative of all applications. (Master-Bilt, No. 0046.1 at p. 1)

DOE agrees with Master-Bilt's observation that it is difficult to make assumptions on product load that are valid for all sizes and all applications. DOE revisited the issue and concluded that the loading ratios indicated by American Panel could be representative of the food service segment of the market, which accounts for about 35 percent of the aggregate installed refrigeration capacity for the walk-ins. From the available product brochures and indicated product loads for different sizes of WICF equipment, DOE believes that the loading ratios used for the other market segments are closer to ratios used in the preliminary analysis. Consequently, DOE did not change the loading ratios for the NOPR analysis.

2. Forecasted Efficiency in the Base Case and Standards Cases

A key component of the NIA is the trend in energy efficiency forecasted for the base and standards cases. Using data collected from manufacturers and an analysis of market information, DOE developed a base-case energy efficiency distribution (which yields a shipment-weighted average efficiency) for each of the considered equipment classes for the first year of the forecast period. To project the efficiency trend over the entire forecast period, DOE considered the current market distribution and recent trends. For envelope components, all base case shipments are assumed to have only a single EPCA-compliant efficiency level except for display doors. For cooler display doors, shipments would be a mix of 25 percent EPCA-compliant equipment and 75 percent higher efficiency equipment. For freezer display doors, shipments would be a mix of 80 percent EPCA-compliant equipment and 20 percent higher efficiency equipment. For refrigeration systems, DOE assumed, based on manufacturer interviews, that in the absence of standards (the base case), shipments would be a mix of 75 percent EPCA-compliant equipment and 25 percent higher efficiency equipment.

For both refrigeration systems and envelope components, DOE assumed no improvement of energy efficiency in the base case and held the base-case energy efficiency distribution constant throughout the forecast period. DOE requests comment on this assumption.

To estimate efficiency trends in the standards cases, DOE has used a ''roll-up'' scenario in its standards rulemakings. The roll-up scenario represents a standards case in which all product efficiencies in the base case that do not meet the standard would roll up to meet the new standard level. Consumers in the base case who purchase walk-in equipment above the standard level are not affected as they are assumed to continue to purchase the same equipment. The roll-up scenario characterizes consumers primarily driven by the first-cost of the analyzed products and characterizes the efficiency trends currently found in the market.

In summary, under the roll-up scenario DOE assumes: (1) Product efficiencies in the base case that do not meet the standard level under consideration would ''roll-up'' to meet the new standard level and (2) product efficiencies above the standard level under consideration would not be affected.

3. National Energy Savings

For each year in the forecast period, DOE calculates the NES for each standard level by multiplying the stock of equipment affected by the energy conservation standards by the per-unit annual energy savings. DOE typically considers the impact of a rebound effect, introduced in the energy-use analysis, in its calculation of national energy savings for a given product. A rebound effect occurs when users operate higher efficiency equipment more frequently and/or for longer durations, thus offsetting estimated energy savings. However, DOE assumed a rebound factor of one, or no effect, because walk-ins must cool their contents at all times and it is not possible for consumers to operate them more frequently. For a further discussion of the rebound effect, see chapter 10 of the TSD. DOE seeks comment on the assumption that there is no rebound effect associated with these products.

To estimate the national energy savings expected from appliance standards, DOE uses a multiplicative factor to convert site energy consumption (at the home or commercial building) into primary or source energy consumption (the energy required to convert and deliver the site energy). These conversion factors account for the energy used at power plants to generate electricity and losses in transmission and distribution, as well as for natural gas losses from pipeline leakage and energy used for pumping. For electricity, the conversion factors vary over time due to projected changes in generation sources (that is, the power plant types projected to provide electricity to the country). The factors that DOE developed are marginal values, which represent the response of the system to an incremental decrease in consumption associated with appliance standards.

In the preliminary analysis, DOE used annual site-to-source conversion factors based on the version of NEMS that corresponds to *AEO2009.* For this NOPR, DOE updated its conversion factors based on the U.S. energy sector model NEMS–BT corresponding to AEO2013.

DOE has historically presented NES in terms of primary energy savings. In response to the recommendations of a committee on ''Point-of-Use and Full-Fuel-Cycle Measurement Approaches to Energy Efficiency Standards'' appointed by the National Academy of Science, DOE announced its intention to use full-fuel-cycle (FFC) measures of energy use and greenhouse gas and other emissions in the national impact analyses and emissions analyses included in future energy conservation standards rulemakings. 76 FR 51281 (August 18, 2011) While DOE stated in that notice that it intended to use the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model to conduct the analysis, it also said it would review alternative methods, including the use of NEMS. After evaluating both models and the approaches discussed in the August 18, 2011 notice, DOE published a statement of amended policy in the **Federal Register** in which DOE explained its determination that NEMS is a more appropriate tool for its FFC analysis and its intention to use NEMS for that purpose. 77 FR 49701 (August 17, 2012). DOE received one comment, which was supportive of the use of NEMS for DOE's FFC analysis.[20]

The approach used for today's NOPR, and the FFC multipliers that were applied, are described in appendix 10G of the NOPR TSD. NES results are presented in both primary and summarized by TSL in terms of FFC savings in section V.B.3.a.

[20] Docket ID: EERE–2010–BT–NOA–0028, comment by Kirk Lundblade.

4. Net Present Value of Consumer Benefit

The inputs for determining the NPV of the total costs and benefits experienced by walk-in equipment consumers are: (1) Total annual installed cost; (2) total annual savings in operating costs; and (3) a discount factor. DOE calculates net savings each year as the difference between the base case and each standards case in total savings in operating costs and total increases in installed costs. DOE calculates operating cost savings over the life of each product shipped during the forecast period.

DOE multiplies the net savings in future years by a discount factor to determine their present value. For the preliminary analysis, DOE estimated the NPV of appliance consumer benefits using both a 3 percent and a 7 percent real discount rate. The 7 percent real value is an estimate of the average before-tax rate of return to private capital in the U.S. economy. The 3 percent real value represents the ''societal rate of time preference,'' which is the rate at which society discounts future consumption flows to their present. NEEA and NPCC urged DOE to focus on the 3-percent discount rate as the primary basis for the analyses because the issues largely pertain to the aggregate costs and benefits accruing to society at large. (NEEA and NPCC, No. 0059.1 at p. 12) DOE uses these discount rates in accordance with guidance provided by the Office of Management and Budget (OMB) to Federal agencies on the development of regulatory analysis.[21] Therefore, for today's NOPR, DOE continued to estimate the NPV of appliance consumer benefits using both a 3 percent and a 7 percent real discount rate as directed by OMB.

5. Benefits From Effects of Standards on Energy Prices

The reduction in electricity consumption associated with new standards for walk-ins could reduce the electricity prices charged to consumers in all sectors of the economy and thereby reduce their electricity expenditures. In chapter 2 of the preliminary TSD, DOE explained that, because the power industry is a complex mix of fuel and equipment suppliers, electricity producers and distributors, it did not plan to estimate the value of potentially reduced electricity costs for all consumers

[21] OMB Circular A–4 (Sept. 17, 2003), section E, ''Identifying and Measuring Benefits and Costs.'' Available at: *www.whitehouse.gov/omb/memoranda/m03-21.html.*

associated with new or amended standards for walk-ins.

For this rule, DOE used NEMS–BT to assess the impacts of the reduced need for new electric power plants and infrastructure projected to result from standards. In NEMS–BT, changes in power generation infrastructure affect utility revenue requirements, which in turn affect electricity prices. DOE estimated the impact on electricity prices associated with each considered TSL. Although the aggregate benefits for electricity users are potentially large, there may be negative effects on some entities involved in electricity supply, particularly power plant providers and fuel suppliers. Given the uncertainty about the extent to which the benefits for electricity users from reduced electricity prices would be a transfer from those involved in electricity supply to electricity users, DOE continues to investigate the extent to which electricity price changes projected to result from standards represent a net gain to society.

H. Consumer Subgroup Analysis

In analyzing the potential impact of new or amended standards on commercial consumers, DOE evaluates the impact on identifiable groups (*i.e.,* subgroups) of consumers, such as different types of businesses that may be disproportionately affected by an energy conservation standard. DOE gathered data for all business types identified in the analysis: grocery stores; convenience stores (including specialty food stores); convenience stores without gasoline stations; and restaurants that purchase their own walk-in coolers or freezers.

Comments submitted by American Panel and Manitowoc recommended that DOE consider non-chain restaurants independently of chain restaurants. (American Panel, Public Meeting Transcript, No. 0045 at p. 252; Manitowoc, Public Meeting Transcript, No. 0045 at p. 254) Further comments by American Panel suggested that small restaurants are more vulnerable to potential economic consequences of an efficiency standard. (American Panel, No. 0048.1 at p. 10) DOE agrees with these comments and believes that its current models accurately represent chain restaurants because data used to characterize the restaurant business type is dominated by multi-establishment chain restaurants. Hence, small, non-chain restaurants are included in the subgroup analysis.

After reviewing the data and submitted comments (see TSD chapter 11 for more details), DOE identified small restaurant owners because this subgroup likely includes owners of high-cost walk-in coolers and freezers, has the highest capital costs of all subgroups, and potentially experiences the shortest equipment economic lifetimes. These conditions make it likely that this subgroup will have the lowest life-cycle cost savings of any major consumer group.

DOE estimated the impact on the identified consumer subgroup using the LCC spreadsheet model. The standard LCC and PBP analyses (described in section IV.F) include various types of businesses that own and use walk-in coolers and freezers. The LCC spreadsheet model allows for the identification of one or more subgroups of businesses, which can then be analyzed by sampling only each subgroup. The results of DOE's LCC subgroup analysis are summarized in section V.B and described in detail in chapter 11 of the TSD.

I. Manufacturer Impact Analysis

1. Overview

DOE performed an MIA to estimate the financial impact of energy conservation standards on manufacturers of walk-in equipment and to calculate the impact of such standards on employment and manufacturing capacity. Manufacturers of panels, doors, and refrigeration, as well as manufacturers of completed walk-ins, were considered in the analysis.

The MIA has both quantitative and qualitative aspects. The quantitative portion of the MIA primarily relies on the Government Regulatory Impact Model (GRIM), an industry cash-flow model customized for this rulemaking. The key GRIM inputs are data on the industry cost structure, product costs, shipments, and assumptions about markups and conversion expenditures. The key output is the industry net present value (INPV). Different sets of assumptions (markup scenarios) will produce different results. The qualitative portion of the MIA addresses factors such as product characteristics and industry and market trends. Chapter 12 of the NOPR TSD describes the complete MIA.

DOE conducted the MIA for this rulemaking in three phases. In Phase 1 of the MIA, DOE prepared a profile of the walk-in cooler and freezer industry, which includes a top-down cost analysis of manufacturers that DOE used to derive preliminary financial inputs for the GRIM (*e.g.,* sales general and administration (SG&A) expenses; research and development (R&D) expenses; and tax rates). DOE used public sources of information, including company Securities and Exchange Commission (SEC) 10–K filings, Moody's company data reports, corporate annual reports, the U.S. Census Bureau's Economic Census, and Dun and Bradstreet reports.

In Phase 2 of the MIA, DOE prepared an industry cash-flow analysis to quantify the impacts of a new energy conservation standard. In general, new or more stringent energy conservation standards can affect manufacturer cash flow in three distinct ways: (1) Create a need for increased investment, (2) raise production costs per unit, and (3) alter revenue due to higher per-unit prices and possible changes in sales volumes.

In Phase 3 of the MIA, DOE conducted interviews with a representative cross-section of manufacturers. During these interviews, DOE discussed engineering, manufacturing, procurement, and financial topics to validate assumptions used in the GRIM and to identify key issues or concerns. See section IV.I.4 for a description of the key issues manufacturers raised during the interviews.

Phase 3 also includes an evaluation of sub-groups of manufacturers that may be disproportionately impacted by standards or that may not be accurately represented by the average cost assumptions used to develop the industry cash-flow analysis. For example, small manufacturers, niche players, or manufacturers exhibiting a cost structure that largely differs from the industry average could be more negatively affected. Thus, during Phase 3, DOE analyzed small manufacturers as a subgroup.

The Small Business Administration (SBA) defines a small business for North American Industry Classification System (NAICS) 333415 ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing'' as having 750 employees or fewer. During its research, DOE identified multiple companies that manufacture products covered by this rulemaking and qualify as a small business under the SBA definition. The small businesses were further sub-divided into small manufacturers of panels, doors, and refrigeration equipment to better understand the impacts of the rulemaking on those entities. The small business subgroup is discussed in sections V.B.2.d and VI.B of today's notice and in Chapter 12 of the NOPR TSD.

2. Government Regulatory Impact Model Analysis

As discussed previously, DOE uses the GRIM to quantify the changes in cash flow that result in a higher or lower industry value from new standards. The GRIM analysis uses a discounted cash-flow methodology that incorporates manufacturer costs, markups, shipments, and industry financial information as inputs. The GRIM models changes in costs, distribution of shipments, investments, and manufacturer margins that could result from new energy conservation standards. The GRIM spreadsheet uses the inputs to arrive at a series of annual cash flows beginning in 2013 (the base year of the analysis) and continuing to 2046. DOE calculated INPVs by summing the stream of annual discounted cash flows during these periods. DOE applied discount rates derived from industry financials and then modified them according to feedback during manufacturer interviews. Discount rates ranging from 9.4 to 10.5 percent were used depending on the component being manufactured.

The GRIM calculates cash flows using standard accounting principles and compares changes in INPV between the base case and each TSL (the standards case). Essentially, the difference in INPV between the base case and a standards case represents the financial impact of the new standard on manufacturers. Additional details about the GRIM, the discount rate, and other financial parameters can be found in chapter 12 of the TSD.

DOE typically presents its estimates of industry impacts by grouping the major equipment classes served by the same manufacturers. For the WICF industry, DOE groups results by panels, doors, and refrigeration systems.

a. Government Regulatory Impact Model Key Inputs

i. Manufacturer Production Costs

Manufacturing a higher-efficiency product is typically more expensive than manufacturing a baseline product due to the use of more expensive components and larger quantities of raw materials. The changes in the manufacturer production cost (MPC) of the analyzed products can affect revenues, gross margins, and cash flow of the industry, making these product cost data key GRIM inputs for DOE's analysis.

In the MIA, DOE used the MPCs for each considered efficiency level calculated in the engineering analysis, as described in section IV.C and further detailed in chapter 5 of the TSD. In addition, DOE used information from its teardown analysis, described in section IV.C.3.a, to disaggregate the MPCs into material, labor, and overhead costs. To calculate the MPCs for products above the baseline, DOE added the incremental material, labor, and overhead costs from the engineering cost-efficiency curves to the baseline MPCs. These cost breakdowns and product mark-ups were validated with manufacturers during manufacturer interviews.

ii. Shipments Forecast

The GRIM estimates manufacturer revenues based on total unit shipment forecasts and the distribution of shipments by equipment class. For the base-case analysis, the GRIM uses the NIA base-case shipment forecasts from 2013, the base year for the MIA analysis, to 2046, the last year of the analysis period.

For the standards case shipment forecast, the GRIM uses the NIA standards case shipment forecasts. The NIA assumes zero elasticity in demand as explained in section 9.3.1 in chapter 9 of the TSD. Therefore, the total number of shipments per year in the standards case is equal to the total shipments per year in the base case. DOE assumes a new efficiency distribution in the standards case, however, based on the energy conservation standard. DOE assumed that product efficiencies in the base case that did not meet the standard under consideration would ''roll up'' to meet the new standard in the standard year.

iii. Product and Capital Conversion Costs

New energy conservation standards will cause manufacturers to incur conversion costs to bring product designs into compliance. DOE evaluated the level of conversion-related capital expenditures needed to comply with each efficiency level in each equipment class. For the purpose of the MIA, DOE classified these conversion costs into two major groups: (1) Product conversion costs and (2) capital conversion costs. Product conversion costs are investments in research, development, testing, and marketing focused on making product designs comply with the new energy conservation standards. Capital conversion costs are investments in property, plant, and equipment to adapt or change existing production facilities so that new equipment designs can be fabricated and assembled.

To evaluate the level of capital conversion expenditures manufacturers would likely incur to comply with energy conservation standards, DOE used the manufacturer interviews to gather data on the level of capital investment required at each efficiency level. DOE validated manufacturer comments through estimates of capital expenditure requirements derived from the product teardown analysis and engineering model described in sections IV.C.2 and IV.C.3.

DOE assessed the product conversion costs at each level by integrating data from quantitative and qualitative sources. DOE considered feedback from multiple manufacturers at each efficiency level to determine conversion costs such as R&D expenditures and certification costs. Manufacturer numbers were aggregated to better reflect the industry as a whole and to protect confidential information.

In general, DOE assumes that all conversion-related investments occur between the year of publication of the final rule and the year by which manufacturers must comply with the standard. The investment figures used in the GRIM can be found in section V.B.2.a of today's notice. For additional information on the estimated product conversion and capital conversion costs, see chapter 12 of the TSD.

b. Government Regulatory Impact Model Scenarios

i. Markup Scenarios

As discussed above, MSPs include direct manufacturing production costs (*i.e.,* labor, material, and overhead estimated in DOE's MPCs) and all non-production costs (*i.e.,* SG&A, R&D, and interest), along with profit. To calculate the MSPs in the GRIM, DOE applied non-production cost markups to the MPCs estimated in the engineering analysis for each equipment class and efficiency level. Modifying these markups in the standards case yields different sets of impacts on manufacturers. For the MIA, DOE modeled two standards case markup scenarios to represent the uncertainty regarding the potential impacts on prices and profitability for manufacturers following the implementation of new energy conservation standards: (1) A preservation of gross margin percentage and (2) a preservation of operating profit. These scenarios lead to different markups values which, when applied to the input MPCs, result in varying revenue and cash flow impacts.

Under the ''preservation of gross margin percentage'' scenario, DOE applied a single uniform gross margin percentage markup across all efficiency levels. As production costs increase

with efficiency, this scenario implies that the absolute dollar markup will increase as well. DOE assumed the non-production cost markup—which includes SG&A expenses, research and development expenses, interest, and profit—to be 1.32 for panels, 1.50 for solid doors, 1.62 for display doors, and 1.35 for refrigeration. These markups are consistent with the ones DOE assumed in the engineering analysis. Manufacturers have indicated that it is optimistic to assume that, as manufacturer production costs increase in response to an energy conservation standard, manufacturers would be able to maintain the same gross margin percentage markup. Therefore, DOE assumes that this scenario represents a high bound to industry profitability under an energy conservation standard.

In the preservation of operating profit scenario, manufacturer markups are set so that operating profit one year after the compliance date of the new energy conservation standards is the same as in the base case. Under this scenario, as the cost of production and the cost of sales rise, manufacturers are generally required to reduce their markups to a level that maintains base case operating profit. The implicit assumption behind this markup scenario is that the industry can maintain only its operating profit in absolute dollars after the standard. Operating margin in percentage terms is reduced between the base case and standards case.

3. Discussion of Comments

Interested parties commented on the assumptions and results of the preliminary analysis, particularly on the cumulative regulatory burden, inventory levels, and scope of the manufacturer impact analysis.

a. Cumulative Regulatory Burden

AHRI stated that DOE must take into account the impact of new regulations that California is working on as part of Title 20 that will establish new prescriptive design requirements for walk-in coolers and freezers in 2011. (AHRI, Public Meeting Transcript, No. 0045 at p. 5)

DOE reviewed California Code of Regulations Title 20, Section 1605, which establishes walk-in requirements for insulation levels, motor types, and use of automatic door-closers. The latest set of regulations, published in the 2010 Appliance Efficiency Regulations and effective 2011, includes design standards required for all walk-ins manufactured on or after January 1, 2009. These state regulations are identical to Federal regulations that are set forth in EPCA (see 42 U.S.C. 6313(f)), and that are already in place. As a practical matter, the Federal regulations mirror those that the State of California had previously prescribed. As a result there was no incremental cost differential between the Federal standards promulgated in 2007 and California standards. The energy conservation standards that DOE is considering in this standards rulemaking are more stringent than the already-prescribed levels.

AHRI also expressed concern over California regulations to limit greenhouse gas emissions, in particular the California Air Resources Board (CARB) provisions to reduce the use of high global warming potential refrigerants, such as hydrofluorocarbons (HFCs). (AHRI, Public Meeting Transcript, No. 0045 at p. 5)

CARB is currently limiting the in-state use of high-GWP refrigerants in non-residential refrigeration systems through its Refrigerant Management Program, effective January 1, 2011. According to this new regulation, facilities with refrigeration systems that have a refrigerant capacity exceeding 50 pounds must repair leaks within 14 days of detection, maintain on-site records of all leak repairs, and keep receipts of all refrigerant purchases. The regulation applies to any person or company that installs, services, or disposes of appliances with high-GWP refrigerants. According to EPCA, walk-in coolers and freezers are enclosed storage spaces that can be walked into and have a total chilled storage area of less than 3,000 square feet. (42 U.S.C. 6311(20) (defining the term ''walk-in cooler; walk-in freezer'')) Due to this size limit, it is unlikely that a walk-in refrigeration system will contain over 50 pounds of refrigerant, making application of the CARB provisions unlikely.[22]

b. Inventory Levels

In the preliminary analysis, DOE determined from U.S. Census data that the end-of-year inventory for the air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing industry (NAICS code 333415) was approximately 10 percent of shipment value from 2002 to 2007 (U.S. Census Bureau Annual Survey of Manufacturers) and presented these data in Table 12.3.3 of chapter 12 in the preliminary TSD. American Panel expressed concerns that the inventory percentages shown in Table 12.3.3 of chapter 12 in the Preliminary TSD are inaccurate and noted that their end-of-year inventory value has been only 2.5 percent of annual shipment value on average. (American Panel, No. 0048.1 at p. 11) The U.S. Census percentages represent values for the air-conditioning and warm-air heating equipment and commercial and industrial refrigeration equipment manufacturing industry, which includes a wide range of products and companies. DOE agrees that the U.S. Census figures may not necessarily be representative of inventory levels for specific walk-in cooler and freezer manufacturers. The figure is used to characterize the industry and is not a component of any quantitative analysis. DOE has factored American Panel's inventory number into its qualitative understanding of the walk-in industry.

c. Manufacturer Subgroup Analysis

AHRI suggested that DOE should enlarge the scope of the manufacturer impact analysis to examine the impact of the rulemaking on all manufacturers of different equipment classes—including panel, door, and refrigeration system manufacturers. (AHRI, Public Meeting Transcript, No. 0045 at p. 4)

To better reflect the structure of the rulemaking, DOE has expanded its analysis of manufacturers to include the impact of the rulemaking on key component suppliers, including panel manufacturers, door manufacturers, and refrigeration system manufacturers. Additionally, small manufacturers of panels, doors, and refrigeration systems are considered as separate sub-groups in the MIA.

4. Manufacturer Interviews

As part of the MIA, DOE discussed potential impacts of standards with eight panel manufacturers, six door manufacturers, and three refrigeration systems manufacturers. In the interviews, DOE asked manufacturers to describe their major concerns about this rulemaking. The following sections discuss manufacturers' most significant concerns.

a. Cost of Testing

All door, panel, and refrigeration manufacturers expressed concern regarding the cost of testing. The majority of walk-ins sold are not standard combinations of box sizes, refrigeration components, and doors. Almost every walk-in unit is tailored to meet consumer specifications. According to manufacturers, DOE-mandated testing of every configuration sold is not realistic and could become

[22] DOE estimates that walk-ins meeting the statutory definition would likely use between 5 and 40 pounds of refrigerant, below the threshold established under the California regulations.

a financial burden that would negatively impact manufacturers' profitability.

The cost of compliance testing includes the engineering support necessary to design and run tests, the cost of the units tested, and the cost of third-party testing support. Some manufacturers indicated that it may be necessary to set up new test labs to deal with compliance requirements. Beyond DOE compliance testing, energy conservation standards may lead to product redesigns that require new certifications, such as Underwriters Laboratories (UL) fire safety, NSF 2 food service, and NSF 7 commercial refrigerator and freezer standards compliance.

Multiple door, panel, and refrigeration manufacturers expressed concern that these compliance and certification testing costs may lead to less customization in the industry. As an example, one door manufacturer was concerned that walk-in manufacturers would offer fewer door choices and partner with fewer door companies to reduce testing burden. As another example, a manufacturer that produces only unit coolers indicated that the need to certify the complete refrigeration system would force them to leave the WICF market. As the unit cooler supplier, the manufacturer does not have the ability to certify the entire system because they do not supply the condensing unit portion of the system. Today, the manufacturer's consumers pair the unit coolers with condensing units from other suppliers to assemble a walk-in refrigeration system. The manufacturer speculated that, in a regulated environment, their consumers would switch from buying refrigeration components from manufacturers of unit coolers to buying complete systems with matched unit coolers and condensing units from larger competitors that build complete systems rather than components. Their customers would make this change to avoid the test burden on refrigeration systems. Other manufacturers mentioned that the cost of testing could ultimately lead to conditions in which small panel manufacturers would be forced out of the market.

Finally, walk-in manufacturers were concerned about pricing and availability of third-party testing. Several walk-in manufacturers noted that it is unclear whether a sufficient number of qualified third parties exist to carry out the performance testing mandated by DOE for the entire industry. One manufacturer was concerned that an insufficient number of test facilities would lead to higher testing costs and delays in achieving compliance.

b. Enforcement and Compliance

All of the interviewed manufacturers expressed concern that an energy conservation standard rulemaking could result in unfair competition if the standard is not properly enforced. Interviewed manufacturers claimed that numerous manufacturers, particularly small one-to-two person operations, are not currently complying with the existing walk-in regulations in EPCA, which took effect January 1, 2009. The manufacturers explained that smaller operations often have an incentive to be non-compliant. By using materials that do not comply with existing regulations, the non-compliant manufacturers maintain a price advantage over compliant manufacturers.

Manufacturers emphasized the need to have well-defined compliance responsibilities. WICF units can be manufactured and delivered as per standard by the manufacturer, but the end user may decide to remove some of the efficiency features, such as strip curtains. Additionally, the quality of installation at the client site is often a factor that manufacturers cannot control because field assembly is managed by contractors. Manufacturers also noted that, for some installations, the contractors purchase the walk-in envelope and refrigeration equipment from separate suppliers, making it impossible for the equipment manufacturers to determine the efficiency of the installed product. Multiple manufacturers requested clarification to better understand which party bears responsibility for ensuring field-assembled walk-ins meet federal standards.

In this NOPR, DOE discusses issues surrounding compliance and enforcement. In particular, DOE proposes that each component manufacturer would be responsible for certifying to DOE that the components they manufacture comply with the standards. DOE believes that the component-based approach provides for effective certification and enforcement of any standards while ensuring that the walk-in industry has sufficient flexibility to meet the applicable standards. For more details on DOE's proposed approach, see section III.D.

c. Profitability Impacts

Walk-in manufacturers discussed how new energy conservation standards could affect profit levels. Manufacturers considered the walk-in industry to be a low margin-business. Price competition can be very aggressive, particularly for large orders and for name-brand client accounts. Manufacturers stated that low margins leave little room for the added costs that energy conservation standards could impose. Manufacturers noted that they will have to absorb the additional costs or pass the costs onto the consumer.

Specifically, manufacturers emphasized their concerns about the impact of thicker panels, thicker doors, and more efficient refrigeration on profitability. Thicker panels require more material and longer processing times. The end result could be a reduction in factory throughput coupled with increased cost. Additionally, manufacturers noted that thicker panels are heavier, which leads to higher shipping costs. Similar concerns exist for solid doors. To achieve higher refrigeration efficiencies, manufacturers would have to purchase larger coils, more efficient compressors, and more expensive control systems. All these components increase the cost of goods sold for the completed walk-in.

Manufacturers speculated that passing all these costs onto their customers would lead to lower-volume orders, as consumers with set budgets would not be able to purchase as many walk-ins (in the case of chain stores) or as much walk-in space (in the case of individual operations) for the same dollar amount. Alternatively, absorbing these costs would significantly reduce profit margins.

In the manufacturer impact analysis, DOE has examined the impacts of standards on manufacturers' profit margins. For the results of DOE's analysis, see section V.B.2.a.

d. Excessive Conversion Cost

According to panel manufacturers, a new energy conservation standard that requires increased levels of thickness could result in high conversion costs. Much of the existing production equipment is designed to produce panels 3.5–5 inches thick. Panels that are 6 or more inches thick are less common in the industry. Any standard that results in the market moving to 5-inch thick panels would require some conversion cost as factories that use foam-in-place technology must accommodate increased curing times. Manufacturers indicated that the conversion costs could range from $100,000 to $500,000, depending on the manufacturer's existing equipment. Any standard that requires 6-inch thick panels would involve significant additional investment by most manufacturers. At this level of thickness, manufacturers estimate conversion costs would range from $200,000 to $1 million. Any standard that requires 7-inch thick panels would

require all manufacturers to reevaluate their manufacturing process. Conversion costs would range from $1.5 million to $4 million. Based on manufacturer statements, any standard that moved the industry to 6-inch thick panels would likely put some of the top 10 panel manufacturers out of business.

DOE considers conversion costs in the manufacturer impact analysis. For details on DOE's findings, see section V.B.2.a.

e. Disproportionate Impact on Small Businesses

Most interviewed manufacturers noted that new energy conservation standards could have a disproportionate impact on small businesses as compared to larger businesses. The cost of testing, the potential increase in materials, and the potential need to obtain financing are the factors that could affect small business manufacturers producing refrigeration systems, panels, and doors more severely.

Manufacturers voiced concerns regarding the cost of both compliance testing and certification testing (*e.g.,* UL and NSF certifications) on small businesses. According to manufacturers, the price tag for testing is likely to be similar for both small and large companies due to the high level of product customization in the industry. For small businesses, the cost will spread across smaller sales volumes, making recuperation of the testing investment more difficult. Some manufacturers thought that compliance testing costs alone could force small manufacturers to exit the industry.

Additionally, small manufacturers indicated that they face a significant price disadvantage for foaming agents (used for insulation) and components due to their small purchasing quantities when compared to large manufacturers. Any standard that requires small manufacturers to use more foam or more expensive components will exacerbate the pricing gap. Given the price-sensitive nature and low margin of the industry, the small envelope manufacturers were concerned that requiring thicker panels provided a competitive advantage to large manufacturers that could obtain foaming agents at a lower price based on order quantities that are of larger magnitude.

Several interviewed manufacturers expressed concern that the current tightness in financial markets and reduced economic activity could negatively impact their ability to obtain the financing necessary to cover compliance costs, particularly for small business operations, which generally have greater difficulty obtaining financing.

DOE has examined the impact on small manufacturers in its manufacturer sub-group analysis and regulatory flexibility analysis. For the results of these analyses, see sections V.B.2.d and VI.B.

f. Refrigerant Phase-Out

Interviewed manufacturers noted the impacts of mandated changes in blowing agents and refrigerants. Currently, walk-in manufacturers use HFC–404 and HFC–134a refrigerants. While HFC–404 is used exclusively as a refrigerant, HFC–134a is used as both a refrigerant and a blowing agent in the walk-in manufacturing industry.

Several manufacturers expressed concern about the impact of a potential phase-down or phase-out of HFCs. The concern is acute because manufacturers stated that there is no clear alternative or substitute to HFCs for the industry. Without a clear replacement, manufacturers are concerned that any phase-out would create a period of uncertainty as the industry identifies suitable alternatives and then redesigns both products and processes around the replacement. In the manufacturers' experience, past phase-outs have led to more expensive and less efficient refrigerant replacements.

Panel manufacturers expressed concern that conversion to a new blowing agent would be costly as they would have to go through a transition period in which foam would need to be reformulated. Production processes and facilities would need to adapt to the new foam blend. Manufactures stated that previous, replacement blowing agents have been more expensive and have presented challenges to the production process because of different flow characteristics from the agents they replace. They also noted that blowing agent substitutes have led to foam blends with lower R-value, providing less insulation. Panel manufacturers were concerned that lower insulation effectiveness results in thicker panels needed to meet a standard, which leads to increased production cost and lower profit margins.

Refrigeration system manufacturers expressed that an HFC phase-out would be costly as it would require redesign of all products. Some manufacturers stated that an HFC phase-out would force them to use flammable refrigerants. Manufacturers noted that some alternative refrigerants may require substantially larger systems to achieve the same levels of performance.

As discussed in section IV.A.2.b, DOE has only considered HFC refrigerants in the analysis. DOE did not consider whether foam blowing agents would cost more, less or stay the same and DOE understands there is a range of non-HFC foam blowing used already in these applications.

J. Employment Impact Analysis

Employment impacts are one factor DOE considers in selecting an efficiency standard. Employment impacts include direct and indirect impacts. Direct employment impacts are any changes that affect employment of WICF manufacturers. Indirect impacts are those employment changes in the larger economy that occur because of the shift in expenditures and capital investment caused by the purchase and operation of more efficient walk-ins. The MIA results in section V.B.2.b of this notice and chapter 12 of the TSD address only the direct employment impacts on walk-in manufacturers. Chapter 13 of the TSD provides further information about other, primarily indirect, employment impacts discussed in this section.

Indirect employment impacts from WICF standards consist of the net jobs created or eliminated in the national economy, excluding the manufacturing sector being regulated, as a consequence of (1) reduced spending by end-users on electricity, which could potentially be offset by the increased spending on maintenance and repair of higher efficiency equipment); (2) reduced spending on new energy supply by the utility industry; (3) increased spending on the purchase price of new walk-in coolers and freezers; and (4) the effects of those three factors throughout the economy. DOE expects the net monetary savings from standards to stimulate other forms of economic activity. DOE also expects these shifts in spending and economic activity to affect the demand for labor.

In developing this analysis in the NOPR, DOE estimated indirect national employment impacts using an input/output model of the U.S. economy, called ImSET (Impact of Sector Energy Technologies) developed by DOE's Building Technologies Program. ImSET is a personal-computer based, economic analysis model that characterizes the interconnections among 188 sectors of the economy as national input/output structural matrices using data from the U.S. Department of Commerce's 1997 Benchmark U.S. input-output table. The ImSET model estimates changes in employment, industry output, and wage income in the overall U.S. economy resulting from changes in expenditures in various sectors of the economy. DOE estimated changes in expenditures using the NIA model. ImSET then estimated

the net national indirect employment impacts efficiency standards would have on employment by sector.

The ImSET input/output model suggests that the proposed standards could increase the net demand for labor in the economy, and the gains would most likely be very small relative to total national employment. For more details on the employment impact analysis and its results, see chapter 13 of the TSD and section IV.J of this notice.

K. Utility Impact Analysis

The utility impact analysis estimates several important effects on the utility industry of the adoption of new or amended standards. For this analysis, DOE used the NEMS–BT model to generate forecasts of electricity consumption, electricity generation by plant type, and electric generating capacity by plant type, that would result from each considered TSL. DOE obtained the energy savings inputs associated with efficiency improvements to considered products from the NIA. DOE conducts the utility impact analysis as a scenario that departs from the latest *AEO* Reference case. In the analysis for today's rule, the estimated impacts of standards are the differences between values forecasted by NEMS–BT and the values in the *AEO2013* Reference case. For more details on the utility impact analysis, see chapter 14 of the TSD.

L. Emissions Analysis

In the emissions analysis, DOE estimates the reduction in power sector emissions of carbon dioxide (CO_2), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and mercury (Hg) from potential energy conservation standards for walk-in coolers and freezers. In addition, DOE estimates emissions impacts in production activities (extracting, processing, and transporting fuels) that provide the energy inputs to power plants. These are referred to as ''upstream'' emissions. Together, these emissions account for the full-fuel-cycle (FFC). In accordance with DOE's FFC Statement of Policy (76 FR 51282 (Aug. 18, 2011)), the FFC analysis includes impacts on emissions of methane (CH_4) and nitrous oxide (N_2O), both of which are recognized as greenhouse gases.

DOE conducted the emissions analysis using emissions factors that were derived from data in EIA's *Annual Energy Outlook 2013* (*AEO 2013*), supplemented by data from other sources. DOE developed separate emissions factors for power sector emissions and upstream emissions. The method that DOE used to derive emissions factors is described in chapter 15 of the NOPR TSD.

EIA prepares the *Annual Energy Outlook* using the National Energy Modeling System (NEMS). Each annual version of NEMS incorporates the projected impacts of existing air quality regulations on emissions. *AEO 2013* generally represents current legislation and environmental regulations, including recent government actions, for which implementing regulations were available as of December 31, 2011.

SO_2 emissions from affected electric generating units (EGUs) are subject to nationwide and regional emissions cap-and-trade programs. Title IV of the Clean Air Act sets an annual emissions cap on SO_2 for affected EGUs in the 48 contiguous States and the District of Columbia (DC). SO_2 emissions from 28 eastern states and DC were also limited under the Clean Air Interstate Rule (CAIR; 70 FR 25162 (May 12, 2005)), which created an allowance-based trading program that operates along with the Title IV program. CAIR was remanded to the U.S. Environmental Protection Agency (EPA) by the U.S. Court of Appeals for the District of Columbia Circuit but it remained in effect. See *North Carolina* v. *EPA,* 550 F.3d 1176 (DC Cir. 2008); *North Carolina* v. *EPA,* 531 F.3d 896 (DC Cir. 2008). On August 21, 2012, the DC Circuit issued a decision to vacate CSAPR. See *EME Homer City Generation, LP* v. *EPA,* 696 F.3d 7, 38 (DC Cir. 2012). The court ordered EPA to continue administering CAIR. The *AEO 2013* emissions factors used for today's NOPR assume that CAIR remains a binding regulation through 2040.

The attainment of emissions caps is typically flexible among EGUs and is enforced through the use of emissions allowances and tradable permits. Under existing EPA regulations, any excess SO_2 emissions allowances resulting from the lower electricity demand caused by the adoption of an efficiency standard could be used to permit offsetting increases in SO_2 emissions by any regulated EGU. In past rulemakings, DOE recognized that there was uncertainty about the effects of efficiency standards on SO_2 emissions covered by the existing cap-and-trade system, but it concluded that negligible reductions in power sector SO_2 emissions would occur as a result of standards.

Beginning in 2015, however, SO_2 emissions will fall as a result of the Mercury and Air Toxics Standards (MATS) for power plants, which were announced by EPA on December 21, 2011. 77 FR 9304 (Feb. 16, 2012).[23] In the final MATS rule, EPA established a standard for hydrogen chloride as a surrogate for acid gas hazardous air pollutants (HAP), and also established a standard for SO_2 (a non-HAP acid gas) as an alternative equivalent surrogate standard for acid gas HAP. The same controls are used to reduce HAP and non-HAP acid gas; thus, SO_2 emissions will be reduced as a result of the control technologies installed on coal-fired power plants to comply with the MATS requirements for acid gas. *AEO 2013* assumes that, in order to continue operating, coal plants must have either flue gas desulfurization or dry sorbent injection systems installed by 2015. Both technologies, which are used to reduce acid gas emissions, also reduce SO_2 emissions. Under the MATS, NEMS shows a reduction in SO_2 emissions when electricity demand decreases (e.g., as a result of energy efficiency standards). Emissions will be far below the cap that would be established by CSAPR, so it is unlikely that excess SO_2 emissions allowances resulting from the lower electricity demand would be needed or used to permit offsetting increases in SO_2 emissions by any regulated EGU. Therefore, DOE believes that efficiency standards will reduce SO_2 emissions in 2015 and beyond.

CSAPR established a cap on NO_X emissions in 28 eastern States and the District of Columbia. Energy conservation standards are expected to have little effect on NO_X emissions in those States covered by CSAPR because excess NO_X emissions allowances resulting from the lower electricity demand could be used to permit offsetting increases in NO_X emissions. However, standards would be expected to reduce NO_X emissions in the States not affected by the caps, so DOE estimated NO_X emissions reductions from the standards considered in today's NOPR for these States.

The MATS limit mercury emissions from power plants, but they do not include emissions caps and, as such, DOE's energy conservation standards would likely reduce Hg emissions. DOE estimated mercury emissions reduction using emissions factors based on *AEO 2013,* which incorporates the MATS.

[23] On July 20, 2012, EPA announced a partial stay, for a limited duration, of the effectiveness of national new source emission standards for hazardous air pollutants from coal- and oil-fired electric utility steam generating units. *http://www.epa.gov/airquality/powerplanttoxics/pdfs/20120727staynotice.pdf.*

M. Monetizing Carbon Dioxide and Other Emissions Impacts

As part of the development of this amended rule, DOE considered the estimated monetary benefits likely to result from the reduced emissions of CO_2 and NO_X that are expected to result from each of the TSLs considered. In order to make this calculation similar to the calculation of the NPV of consumer benefit, DOE considered the reduced emissions expected to result over the lifetime of products shipped in the forecast period for each TSL. This section summarizes the basis for the monetary values used for each of these emissions and presents the values considered in this rulemaking.

For today's NOPR, DOE is relying on a set of values for the social cost of carbon (SCC) that was developed by an interagency process. A summary of the basis for these values is provided below, and a more detailed description of the methodologies used is provided as an appendix to chapter 16 of the TSD.

1. Social Cost of Carbon

The SCC is an estimate of the monetized damages associated with an incremental increase in carbon emissions in a given year. It is intended to include (but is not limited to) changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services. Estimates of the SCC are provided in dollars per metric ton of carbon dioxide. A domestic SCC value is meant to reflect the value of damages in the United States resulting from a unit change in carbon dioxide emissions, while a global SCC value is meant to reflect the value of damages worldwide.

Under section 1(b) of Executive Order 12866, agencies must, to the extent permitted by law, ''assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.'' The purpose of the SCC estimates presented here is to allow agencies to incorporate the monetized social benefits of reducing CO_2 emissions into cost-benefit analyses of regulatory actions that have small, or ''marginal,'' impacts on cumulative global emissions. The estimates are presented with an acknowledgement of the many uncertainties involved and with a clear understanding that they should be updated over time to reflect increasing knowledge of the science and economics of climate impacts.

As part of the interagency process that developed these SCC estimates, technical experts from numerous agencies met on a regular basis to consider public comments, explore the technical literature in relevant fields, and discuss key model inputs and assumptions. The main objective of this process was to develop a range of SCC values using a defensible set of input assumptions grounded in the existing scientific and economic literatures. In this way, key uncertainties and model differences transparently and consistently inform the range of SCC estimates used in the rulemaking process.

a. Monetizing Carbon Dioxide Emissions

When attempting to assess the incremental economic impacts of carbon dioxide emissions, the analyst faces a number of serious challenges. A report from the National Research Council [24] points out that any assessment will suffer from uncertainty, speculation, and lack of information about (1) future emissions of greenhouse gases, (2) the effects of past and future emissions on the climate system, (3) the impact of changes in climate on the physical and biological environment, and (4) the translation of these environmental impacts into economic damages. As a result, any effort to quantify and monetize the harms associated with climate change will raise serious questions of science, economics, and ethics and should be viewed as provisional.

Despite the serious limits of both quantification and monetization, SCC estimates can be useful in estimating the social benefits of reducing carbon dioxide emissions. Most Federal regulatory actions can be expected to have marginal impacts on global emissions. For such policies, the agency can estimate the benefits from reduced (or costs from increased) emissions in any future year by multiplying the change in emissions in that year by the SCC value appropriate for that year. The net present value of the benefits can then be calculated by multiplying each of these future benefits by an appropriate discount factor and summing across all affected years. This approach assumes that the marginal damages from increased emissions are constant for small departures from the baseline emissions path, an approximation that is reasonable for policies that have effects on emissions that are small relative to cumulative global carbon dioxide emissions. For policies that have a large (non-marginal) impact on global cumulative emissions, there is a separate question of whether the SCC is an appropriate tool for calculating the benefits of reduced emissions. This concern is not applicable to this notice, however.

It is important to emphasize that the interagency process is committed to updating these estimates as the science and economic understanding of climate change and its impacts on society improves over time. In the meantime, the interagency group will continue to explore the issues raised by this analysis and consider public comments as part of the ongoing interagency process.

b. Social Cost of Carbon Values Used in Past Regulatory Analyses

Economic analyses for Federal regulations have used a wide range of values to estimate the benefits associated with reducing carbon dioxide emissions. The model year 2011 Corporate Average Fuel Economy final rule, the U.S. Department of Transportation (DOT) used both a ''domestic'' SCC value of $2 per metric ton of CO_2 and a ''global'' SCC value of $33 per metric ton of CO_2 for 2007 emission reductions (in 2007$), increasing both values at 2.4 percent per year. DOT also included a sensitivity analysis at $80 per metric ton of CO_2.[25] A 2008 regulation proposed by DOT assumed a domestic SCC value of $7 per metric ton of CO_2 (in 2006$) for 2011 emission reductions (with a range of $0–$14 for sensitivity analysis), also increasing at 2.4 percent per year.[26] A regulation for packaged terminal air conditioners and packaged terminal heat pumps finalized by DOE in 2008 used a domestic SCC range of $0 to $20 per metric ton CO_2 for 2007 emission reductions (in 2007$). 73 FR 58772, 58814 (Oct. 7, 2008) In addition, EPA's 2008 Advance Notice of Proposed Rulemaking on Regulating Greenhouse Gas Emissions Under the Clean Air Act identified what it described as ''very preliminary'' SCC estimates subject to revision. 73 FR 44354 (July 30, 2008). EPA's global mean values were $68 and

[24] National Research Council. *Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use.* National Academies Press: Washington, DC (2009).

[25] See *Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011,* 74 FR 14196 (March 30, 2009) (Final Rule); Final Environmental Impact Statement Corporate Average Fuel Economy.

[26] See, *Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015,* 73 FR 24352 (May 2, 2008) (Proposed Rule); Draft Environmental Impact Statement Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015 at 3–58 (June 2008) (Available at: *http://www.nhtsa.gov/fuel-economy*)

$40 per metric ton CO_2 for discount rates of approximately 2 percent and 3 percent, respectively (in 2006$ for 2007 emissions).

In 2009, an interagency process was initiated to offer a preliminary assessment of how best to quantify the benefits from reducing carbon dioxide emissions. To ensure consistency in how benefits are evaluated across agencies, the Administration sought to develop a transparent and defensible method, specifically designed for the rulemaking process, to quantify avoided climate change damages from reduced CO_2 emissions. The interagency group did not undertake any original analysis. Instead, it combined SCC estimates from the existing literature to use as interim values until a more comprehensive analysis could be conducted. The outcome of the preliminary assessment by the interagency group was a set of five interim values: global SCC estimates for 2007 (in 2006$) of $55, $33, $19, $10, and $5 per metric ton of CO_2. These interim values represented the first sustained interagency effort within the U.S. government to develop an SCC for use in regulatory analysis. The results of this preliminary effort were presented in several proposed and final rules.

c. Current Approach and Key Assumptions

Since the release of the interim values, the interagency group reconvened on a regular basis to generate improved SCC estimates. Specifically, the group considered public comments and further explored the technical literature in relevant fields. The interagency group relied on three integrated assessment models commonly used to estimate the SCC: the FUND, DICE, and PAGE models. These models are frequently cited in the peer-reviewed literature and were used in the last assessment of the Intergovernmental Panel on Climate Change. Each model was given equal weight in the SCC values that were developed.

Each model takes a slightly different approach to model how changes in emissions result in changes in economic damages. A key objective of the interagency process was to enable a consistent exploration of the three models while respecting the different approaches to quantifying damages taken by the key modelers in the field. An extensive review of the literature was conducted to select three sets of input parameters for these models: climate sensitivity, socio-economic and emissions trajectories, and discount rates. A probability distribution for climate sensitivity was specified as an input into all three models. In addition, the interagency group used a range of scenarios for the socio-economic parameters and a range of values for the discount rate. All other model features were left unchanged, relying on the model developers' best estimates and judgments.

The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the three integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The values estimated for 2010 grow in real terms over time, as depicted in Table IV–17. Additionally, the interagency group determined that a range of values from 7 percent to 23 percent should be used to adjust the global SCC to calculate domestic effects,[27] although preference is given to consideration of the global benefits of reducing CO_2 emissions. Table IV–17 presents the values in the 2010 interagency group report,[28] which is reproduced in appendix 16–A of the NOPR TSD.

TABLE IV–17—ANNUAL SCC VALUES FROM 2010 INTERAGENCY REPORT, 2010–2050

[In 2007 dollars per metric ton]

	Discount rate			
	5%	3%	2.5%	3%
	Average	Average	Average	95th percentile
2010	4.7	21.4	35.1	64.9
2015	5.7	23.8	38.4	72.8
2020	6.8	26.3	41.7	80.7
2025	8.2	29.6	45.9	90.4
2030	9.7	32.8	50.0	100.0
2035	11.2	36.0	54.2	109.7
2040	12.7	39.2	58.4	119.3
2045	14.2	42.1	61.7	127.8
2050	15.7	44.9	65.0	136.2

The SCC values used for today's notice were generated using the most recent versions of the three integrated assessment models that have been published in the peer-reviewed literature.[29] Table IV–18 shows the updated sets of SCC estimates in five year increments from 2010 to 2050. The full set of annual SCC estimates between 2010 and 2050 is reported in appendix 16–A of the NOPR TSD. The central value that emerges is the average SCC across models at the 3 percent discount rate. However, for purposes of capturing the uncertainties involved in regulatory impact analysis, the interagency group emphasizes the importance of including all four sets of SCC values.

[27] It is recognized that this calculation for domestic values is approximate, provisional, and highly speculative. There is no a priori reason why domestic benefits should be a constant fraction of net global damages over time.

[28] *Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866.* Interagency Working Group on Social Cost of Carbon, United States Government, February 2010. *http://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf.*

[29] *Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866.* Interagency Working Group on Social Cost of Carbon, United States Government. May 2013. *http://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf.*

TABLE IV–18—ANNUAL SCC VALUES FROM 2013 INTERAGENCY UPDATE, 2010–2050

[In 2007 dollars per metric ton CO2]

Year	Discount rate %			
	5	3	2.5	3
	Average	Average	Average	95th percentile
2010	11	33	52	90
2015	12	38	58	109
2020	12	43	65	129
2025	14	48	70	144
2030	16	52	76	159
2035	19	57	81	176
2040	21	62	87	192
2045	24	66	92	206
2050	27	71	98	221

It is important to recognize that a number of key uncertainties remain, and that current SCC estimates should be treated as provisional and revisable since they will evolve with improved scientific and economic understanding. The interagency group also recognizes that the existing models are imperfect and incomplete. The National Research Council report mentioned above points out that there is tension between the goal of producing quantified estimates of the economic damages from an incremental ton of carbon and the limits of existing efforts to model these effects. There are a number of concerns and problems that should be addressed by the research community, including research programs housed in many of the Federal agencies participating in the interagency process to estimate the SCC. The interagency group intends to periodically review and reconsider those estimates to reflect increasing knowledge of the science and economics of climate impacts, as well as improvements in modeling.

In summary, in considering the potential global benefits resulting from reduced CO_2 emissions, DOE used the values from the 2013 interagency report, adjusted to 2012$ using the GDP price deflator. For each of the four cases specified, the values used for emissions in 2015 were $12.9, $40.8, $62.2, and $117 per metric ton avoided (values expressed in 2012$). DOE derived values after 2050 using the relevant growth rates for the 2040–2050 period in the interagency update.

DOE multiplied the CO_2 emissions reduction estimated for each year by the SCC value for that year in each of the four cases. To calculate a present value of the stream of monetary values, DOE discounted the values in each of the four cases using the specific discount rate that had been used to obtain the SCC values in each case.

2. Valuation of Other Emissions Reductions

DOE investigated the potential monetary benefit of reduced NO_X emissions from the potential standards it considered. As noted above, DOE has taken into account how new or amended energy conservation standards would reduce NO_X emissions in those 22 states not affected by the CAIR. DOE estimated the monetized value of NO_X emissions reductions resulting from each of the TSLs considered for today's NOPR based on estimates found in the relevant scientific literature. Available estimates suggest a very wide range of monetary values per ton of NO_X from stationary sources, ranging from $468 to $4809 per ton in 2012$).[30] In accordance with OMB guidance,[31] DOE calculated the monetary benefits using each of the economic values for NO_X and real discount rates of 3 percent and 7 percent.

DOE is evaluating appropriate monetization of SO_2 and Hg emissions in energy conservation standards rulemakings. It has not included monetization in the current analysis.

V. Analytical Results

A. Trial Standard Levels

As discussed in section III.B, DOE is proposing to set separate performance standards for the refrigeration system and for the envelope's doors and panels. The manufacturers of these components would be required to comply with the applicable performance standards. For a fully assembled WICF unit in service, the aggregate energy consumption would depend on the individual efficiency levels of both the refrigeration system and the components of the envelope.

The refrigeration system removes heat from the interior of the envelope and accounts for most of the walk-in's energy consumption. However, the refrigeration system and envelope interact with each other and affect each other's energy performance. On the one hand, because the envelope components reduce the transmission of heat from the exterior to the interior of the walk-in, the energy savings benefit for any efficiency improvement for these envelope components depends on the efficiency level of the refrigeration system. Thus, any potential standard level for the refrigeration system would affect the energy that could be saved through standards for the envelope components. On the other hand, the economics of higher-efficiency refrigeration systems depend on the refrigeration load profile of the WICF unit as a whole, which is partially impacted by the envelope components.

To accurately characterize the total benefits and burdens for each of its proposed standard levels, DOE developed TSLs that each consist of a combination of standard levels for both the refrigeration system and the set of envelope components that comprise a walk-in. In other words, each TSL DOE proposes in this NOPR consists of a standard for refrigeration systems, a standard for panels, a standard for non-display doors, and a standard for display doors.

1. Trial Standard Level Selection Process

The paragraphs that follow describe how DOE selected the TSLs. First, DOE selected seven potential levels for refrigeration systems by performing LCC and NIA analyses for refrigeration

[30] For additional information, refer to U.S. Office of Management and Budget, Office of Information and Regulatory Affairs, *2006 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities,* Washington, DC.

[31] OMB, Circular A–4: Regulatory Analysis (Sept. 17, 2003).

systems. Second, DOE selected four levels for the envelope components by performing LCC and NIA analyses for the envelope components paired with each of the seven selected refrigeration system levels alone. Third, DOE chose six composite TSLs from the combinations of the seven potential levels for the refrigeration systems and the four potential levels for the envelope components. This process accounts for the fact that, as described above, the choice of refrigeration efficiency level affects the energy savings and NPV of the envelope component levels. These steps are described below.

In selecting potential levels for the refrigeration systems, DOE focused on certain capacity points in the range it considered in the engineering analysis. (For a list of all points considered in the engineering analysis, see section IV.C.1.b.) In selecting the refrigeration capacity points for further analysis, DOE chose capacities with the highest relative shares of shipments in each equipment class. The proposed standard levels for each equipment class were then based on the analyzed capacities in each capacity range. The cost-efficiency tradeoff for the design options is similar over the range of sizes analyzed in the engineering analysis.

TABLE V–1—REFRIGERATION EQUIPMENT CLASS CAPACITIES

Equipment class	Analyzed capacities (kBtu/hr)
DC.M.I, < 9,000	6
DC.M.I, ≥ 9,000	18
DC.M.O, < 9,000	6
DC.M.O, ≥ 9,000	18,54
DC.L.I, < 9,000	6
DC.L.I, ≥ 9,000	9
DC.L.O, < 9,000	6
DC.L.O, ≥ 9,000	9,54
MC.M	9
MC.L	9

DOE enumerated seven potential levels for each of the refrigeration system classes. Each analyzed capacity point in any refrigeration system class has between 3 and 13 efficiency levels, each corresponding to an added applicable design option (described in section IV.C). DOE also analyzed three competing compressor technologies for each dedicated condensing refrigeration system class. These compressor technologies are: hermetic reciprocating, semi-hermetic, and scroll.

At a given efficiency level, the compressor with the best life-cycle cost result was selected to represent the equipment at that efficiency level. From the set of possible efficiency levels for a given class, DOE selected seven for further analysis. For analyzed equipment having less than seven engineering design options (e.g., in the multiplex refrigeration system classes), the same efficiency level appeared more than once in the suite of seven efficiency levels. Five of the seven refrigeration system levels were based on their relative energy saving potential. The other two were based on maximizing the national net present value (''Max NPV''), and on achieving the maximum energy savings that is possible using all of the compressor technologies (''All Compressors'').

DOE decided to include an all-compressors criterion for the refrigeration systems in response to stakeholder comments that DOE did not consider all types of compressors in the preliminary analysis (these comments were discussed in sections IV.C.4.b and IV.C.5.b). In particular, interested parties noted that the choice of compressor could affect the potential energy savings, but that it was inappropriate to treat compressor choice as a design option because not all compressor types are available at all capacities for all types of equipment. In response to these comments, DOE developed performance curves in the engineering analysis for refrigeration systems with each compressor type independently—identifying the maximum efficiency level for systems with each compressor type. The highest refrigeration system efficiency level that could be obtained by any compressor type for a given capacity unit was identified. In its set of TSL options, DOE included a highest efficiency level for the refrigeration systems at which all compressor technologies can compete (''All Compressors''). See chapter 10 of the TSD for further details on DOE's process for selecting potential TSLs.

After the seven potential efficiency levels for each refrigeration system class were selected as described above, DOE proceeded with the LCC and NIA analysis of the envelope components (panels and doors). DOE conducted the LCC and NIA analyses on the envelope components by pairing them with each of the seven refrigeration system efficiency levels. Each panel and door class has between five and nine potential efficiency levels, each corresponding to an engineering design option applicable to that class (described in section IV.C). These LCC and NPV results represent the entire range of the economic benefits to the consumer at various combinations of efficiency levels of the refrigeration systems and the envelope components. The pairing of refrigeration system efficiency levels with the efficiency levels of envelope component classes is discussed in detail in chapter 10 of the TSD.

DOE selected envelope component levels for further analysis based on the following criteria: maximum NPV, maximum NES with positive NPV, and Max Tech. DOE also considered a fourth criterion: maximum NES with positive NPV for display doors only, and no new standard for panels and non-display doors. DOE considered this level because it observed that, due to the nature of the panel and non-display door industry, any standard could have a large effect on small panel and door manufacturers. This effect is described in detail in chapter 12 of the TSD, Manufacturer Impact Analysis.

Finally, DOE chose six composite TSLs by selecting from the combinations of the seven potential levels for the refrigeration systems and the four potential levels for the envelope components. The composite TSLs and criteria for each one are shown in Table V–2.

TABLE V–2—CRITERIA DESCRIPTION FOR THE COMPOSITE TSLS

Component criteria	Refrigeration system criteria			
	All compressors	Max NPV	Max NES with NPV>0 *	Max tech
Display Doors Only		2: All display doors only at NPV>0.		
Maximum NPV	1: All compressors, max NPV.	4: Maximum NPV for both refrigeration system and components.		

TABLE V–2—CRITERIA DESCRIPTION FOR THE COMPOSITE TSLS—Continued

Component criteria	Refrigeration system criteria			
	All compressors	Max NPV	Max NES with NPV>0 *	Max tech
Maximum NES with NPV>0	3: All compressors, NPV>0	.....	5: Max NES with NPV>0 for both Refrigeration system and Components.	
Max–Tech	.....	.....	.....	6: Max-tech for both Refrigeration system and Components.

* Not counted as a separate efficiency level for the refrigeration system, as it corresponds to the Max Tech level in the current analysis.

In Table V–2, the column headings identify the criteria for the TSL option for the refrigeration system and the row headings identify the criteria for the TSL option for the envelope components. The intersection of the row and the column define the respective choices for the composite TSL. The composite TSLs are numbered from 1 to 6 in order of least to most energy savings.

DOE describes each TSL, from highest to lowest energy savings, as follows. TSL 6 is the max-tech level for each equipment class for all components. TSL 5 represents the maximum efficiency level of the refrigeration system equipment classes with a positive NPV at a 7-percent discount rate, combined with the maximum efficiency level with a positive NPV at a 7-percent discount rate for each envelope component (panel, non-display door, or display door). TSL 4 corresponds to the efficiency level with the maximum NPV for refrigeration system classes and the efficiency level with the maximum NPV for envelope component classes. TSL 3 is the highest efficiency level for refrigeration systems at which all compressor technologies can compete, combined with the maximum efficiency level with a positive NPV at a 7-percent discount rate for each envelope component. TSL 2 is the efficiency level with the maximum NPV at a 7-percent discount rate for refrigeration systems, combined with the efficiency level with a maximum NPV at a 7-percent discount rate for display doors only, and does not include a new energy standard for panels and non-display doors. DOE is considering TSL 2 because a standard for panels and non-display doors may be unduly burdensome to a large number of small business manufacturers (see sections V.B.2.d and VI.B for further discussion of the impact of the rule on small manufacturers). TSL 1 is the highest efficiency level for refrigeration systems at which all compressor technologies can compete, combined with the efficiency level with the maximum NPV at a 7-percent discount rate for each envelope component when the components are combined with the selected refrigeration efficiency level. For more details on the criteria for the proposed TSLs, see chapter 10 of the TSD.

2. Trial Standard Level Equations

For panels and doors, DOE expresses the TSLs in terms of a normalization metric. For panels, the normalization metric is the ratio of the edge area to the core area. The TSLs are expressed in terms of polynomial equations that establish maximum U-factor limits in the form of:

$$\text{U - factor} = A \times \left(\frac{\text{Edge Area}}{\text{Core Area}}\right)^2 + B \times \left(\frac{\text{Edge Area}}{\text{Core Area}}\right) + C$$

The form of the equation allows the efficiency requirements to be determined for panels of any dimension within an equipment class. Coefficients A, B, and C were uniquely derived for each equipment class by plotting the U-factor of each representative size in an equipment class versus the edge area to core area ratio of the representative size and modeling the relationship as a polynomial equation. The core and edge areas for both floor and structural panels are defined in the walk-in cooler and freezer test procedure final rule. 76 FR at 33632 (June 9, 2011).

For display and non-display doors, respectively, the normalization metric is the surface area of the door. The TSLs are expressed in terms of linear equations that establish maximum daily energy consumption (MEC) limits in the form of:

$$MEC = D \times (\text{Surface Area}) + E$$

Coefficients D and E were uniquely derived for each equipment class by plotting the energy consumption at a given performance level versus the surface area of the door and determining the slope of the relationship, D, and the offset, E, where the offset represents the theoretical energy consumption of a door with no surface area (the offset is necessary because not all energy-consuming components of the door scale directly with surface area). The surface area is defined in the walk-in cooler and freezer test procedure final rule. 76 FR at 33632.

For refrigeration systems, the proposed TSLs are expressed as a minimum efficiency level (AWEF) that the system must meet. For dedicated condensing systems, DOE calculated the AWEF differently for small and large classes based DOE's expectation that small sized equipment may have difficulty meeting the same efficiency standard as large equipment (see section IV.A.3.b for details). Specifically, DOE observed that higher-capacity equipment tended to be more efficient because of the availability of scroll compressors above a certain capacity. DOE expressed the AWEF for large capacity dedicated condensing systems as a single value corresponding to the AWEF of the lowest capacity system analyzed in the large capacity class. DOE expressed the AWEF for the small capacity dedicated condensing systems as a linear equation normalized to the system gross capacity, where the equation was based on the AWEFs for the smallest two capacities analyzed but adjusted such that the equation would be continuous with the standard level

for the large capacity class at the boundary capacity point between the classes (i.e., 9,000 Btu/h). DOE calculated a single minimum efficiency for each class of multiplex condensing systems because DOE found that equipment capacity did not have a significant effect on the efficiency of the equipment. See appendix 10D of the TSD for further details on how the AWEF values were calculated. DOE requests comment on the AWEF equations and the methodology for determining them. In particular, DOE asks interested parties to submit data on how the efficiency of typical refrigeration systems varies by capacity. Based on comments and additional data DOE receives on the NOPR, DOE may consider other methods of calculating the minimum AWEF associated with the TSLs for each equipment class.

The following tables present the equations and AWEFs for all TSLs under consideration. Table V–3, Table V–4, Table V–5, Table V–6, Table V–7, and Table V–8 show the standards equations for structural cooler panels, structural freezer panels, freezer floor panels, display doors, non-display passage doors, and non-display freight doors, respectively. Table V–9 shows the AWEFs for refrigeration systems and indicates that the equations and AWEFs for a particular class of equipment may be the same across more than one TSL. This occurs when the criteria for two different TSLs are satisfied by the same efficiency level for a particular component. For example, for all refrigeration classes the max-tech level has a positive NPV; thus, the efficiency level with the maximum energy savings with positive NPV (TSL 5) is the same as the efficiency level corresponding to max-tech (TSL 6).

Table V-3 Equations for All Structural Cooler Panel TSLs

TSL	Equations for Maximum U-Factor (Btu/h-ft^2-°F)
Baseline	$-0.10\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.19\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.042$
TSL 1	$-0.012\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.024\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.041$
TSL 2	$-0.10\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.19\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.042$
TSL 3	$-0.010\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.021\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.036$
TSL 4	$-0.017\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.024\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.041$
TSL 5	$-0.010\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.021\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.036$
TSL 6	0.011

Table V-4 Equations for All Structural Freezer Panel TSLs

TSL	Equations for Maximum U-Factor (Btu/h-ft^2-°F)
Baseline	$-0.088\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.17\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.037$
TSL 1	$-0.0083\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.017\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.029$
TSL 2	$-0.088\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.17\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.037$
TSL 3	0.024
TSL 4	$-0.0083\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.017\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.029$
TSL 5	0.024
TSL 6	0.011

Table V-5 Equations for All Freezer Floor Panel TSLs

TSL	Equations for Maximum U-Factor (Btu/h-ft^2-°F)
Baseline	$-0.098\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.18\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.042$
TSL 1	$-0.0091\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.018\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.033$
TSL 2	$-0.098\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.18\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.042$
TSL 3	$-0.0064\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.013\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.023$
TSL 4	$-0.0091\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.018\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.033$
TSL 5	$-0.0064\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.013\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.023$
TSL 6	$-0.021\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.041\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.011$

TABLE V–6—EQUATIONS FOR ALL DISPLAY DOOR TSLS

TSL	Equations for maximum energy consumption (kWh/day)	
	DD.M	DD.L
Baseline	$0.14 \times A_{dd} + 0.82$	$0.36 \times A_{dd} + 0.88$
TSL 1	$0.049 \times A_{dd} + 0.39$	$0.33 \times A_{dd} + 0.38$
TSL 2	$0.049 \times A_{dd} + 0.39$	$0.33 \times A_{dd} + 0.38$
TSL 3	$0.049 \times A_{dd} + 0.39$	$0.06 \times A_{dd} + 3.8$
TSL 4	$0.049 \times A_{dd} + 0.39$	$0.33 \times A_{dd} + 3.8$
TSL 5	$0.049 \times A_{dd} + 0.39$	$0.33 \times A_{dd} + 0.38$
TSL 6	$0.0080 \times A_{dd} + 0.29$	$0.11 \times A_{dd} + 0.32$

TABLE V–7—EQUATIONS FOR ALL PASSAGE DOOR TSLS

TSL	Equations for maximum energy consumption (kWh/day)	
	PD.M	PD.L
Baseline	$0.0040 \times A_{nd} + 0.24$	$0.141 \times A_{nd} + 4.81$
TSL 1	$0.0032 \times A_{nd} + 0.22$	$0.138 \times A_{nd} + 4.04$
TSL 2	$0.0040 \times A_{nd} + 0.24$	$0.141 \times A_{nd} + 4.81$
TSL 3	$0.0032 \times A_{nd} + 0.22$	$0.135 \times A_{nd} + 3.91$
TSL 4	$0.0032 \times A_{nd} + 0.22$	$0.138 \times A_{nd} + 4.04$
TSL 5	$0.0032 \times A_{nd} + 0.22$	$0.135 \times A_{nd} + 3.91$
TSL 6	$0.00093 \times A_{nd} + 0.0083$	$0.131 \times A_{nd} + 3.88$

TABLE V–8—EQUATIONS FOR ALL FREIGHT DOOR TSLS

TSL	Equations for maximum energy consumption (kWh/day)	
	FD.M	FD.L
Baseline	$0.0078 \times A_{nd} + 0.11$	$0.12 \times A_{nd} + 5.6$
TSL 1	$0.0073 \times A_{nd} + 0.082$	$0.11 \times A_{nd} + 5.3$
TSL 2	$0.0078 \times A_{nd} + 0.11$	$0.12 \times A_{nd} + 5.6$
TSL 3	$0.0073 \times A_{nd} + 0.082$	$0.10 \times A_{nd} + 5.2$
TSL 4	$0.0073 \times A_{nd} + 0.082$	$0.11 \times A_{nd} + 5.4$
TSL 5	$0.0073 \times A_{nd} + 0.082$	$0.10 \times A_{nd} + 5.2$
TSL 6	$0.00092 \times A_{nd} + 0.13$	$0.094 \times A_{nd} + 5.2$

TABLE V–9—AWEFS FOR ALL REFRIGERATION SYSTEM TSLS

Equipment class	Equations for minimum AWEF (Btu/W-h)			
	Baseline	TSLs 1 and 3	TSLs 2 and 4	TSLs 5 and 6
DC.M.I, < 9,000	$2.47 \times 10^{-4} \times Q + 2.30$	$4.37 \times 10^{-4} \times Q + 2.26$	$2.63 \times 10^{-4} \times Q + 4.53$	$2.63 \times 10^{-4} \times Q + 4.53$
DC.M.I, ≥ 9,000	4.52	6.19	6.90	6.90
DC.M.O, < 9,000	$2.50 \times 10^{-4} \times Q + 2.66$	$6.10 \times 10^{-4} \times Q + 3.57$	$1.34 \times 10^{-3} \times Q + 0.12$	$9.23 \times 10^{-4} \times Q + 3.90$
DC.M.O, ≥ 9,000	4.91	9.06	12.21	12.21
DC.L.I, < 9,000	$1.43 \times 10^{-4} \times Q + 1.48$	$1.10 \times 10^{-4} \times Q + 2.16$	$1.93 \times 10^{-4} \times Q + 1.89$	$1.93 \times 10^{-4} \times Q + 1.93$
DC.L.I, ≥ 9,000	2.77	3.15	3.63	3.67
DC.L.O, < 9,000	$1.70 \times 10^{-4} \times Q + 1.38$	$2.43 \times 10^{-4} \times Q + 2.16$	$5.70 \times 10^{-4} \times Q + 1.02$	$4.53 \times 10^{-4} \times Q + 2.17$
DC.L.O, ≥ 9,000	2.91	4.35	6.15	6.25
MC.M	6.80	10.82	10.74	10.82
MC.L	4.66	5.91	5.53	5.91

B. Economic Justification and Energy Savings

1. Economic Impacts on Commercial Customers

a. Life-Cycle Cost and Payback Period

Consumers affected by new or amended standards usually incur higher purchase prices and experience lower operating costs. DOE evaluates these impacts on individual consumers by calculating changes in LCC and the PBP associated with the TSLs. Using the approach described in section IV.F, DOE calculated the LCC impacts and PBPs for the efficiency levels considered in this NOPR. Inputs used for calculating the LCC include total installed costs (*i.e.,* equipment price plus installation costs), annual energy savings, and average electricity costs by consumer, energy price trends, repair costs, maintenance costs, equipment lifetime, and consumer discount rates. DOE based the LCC and PBP analyses on energy consumption under conditions of actual product use. DOE created

distributions of values for some inputs, with probabilities attached to each value, to account for their uncertainty and variability. DOE used probability distributions to characterize equipment lifetime, discount rates, sales taxes and several other inputs to the LCC model.

The computer model DOE uses to calculate the LCC and PBP, which incorporates Crystal Ball (a commercially available software program), relies on a Monte Carlo simulation to incorporate uncertainty and variability into the analysis. The Monte Carlo simulations randomly sample input values from the probability distributions of the input variables and calculate the LCC and PBP from these. Details of the spreadsheet model, and of all the inputs to the LCC and PBP analyses, are contained in TSD chapter 8 and its appendices.

DOE's LCC and PBP analysis results for each refrigeration system are reported in Table V–10 through Table IV–14 at each TSL for the representative sizes of walk-in refrigeration systems in each equipment class. Each table includes the installed cost, total LCC, average LCC savings, the median payback period, and also the percentage of customers who will experience a benefit, cost, or no change under a proposed standard by performing a Monte Carlo analysis. DOE noted that for all classes of refrigeration systems, consumer LCCs were positive up through TSL 6, which corresponds to the maximum technologically feasible level (max-tech) refrigeration level. The median PBP values vary between 2–6 years for the dedicated condensing unit (DC) classes and were less than 1 year for the multiplex classes for all TSLs for medium temperature systems and for TSL2 and TSL 4 for low temperature systems. The median PBP exceeded 2 year only for the other TSLs considered. DOE also noted that higher benefits are experienced by users of larger capacity systems than by the smaller capacity systems. The LCC savings and PBP for all the sizes analyzed by DOE are shown in TSD chapter 8.

DOE's LCC and PBP analysis results for all envelope component equipment classes at each TSL are reported in Table V–15 through Table V–17. DOE analyzed three sizes (small, medium and large) in each component equipment class. Results for the components of different sizes in the equipment class are averaged on the basis of their shipment weights and reported in these tables. LCC and PBP results for all sizes may be found in chapter 8 of the TSD. Table V–10 through Table V–17 show that for all the components, LCC savings are significantly negative and payback periods are very high at the max-tech level (TSL 6).

TABLE V–10—SUMMARY LCC AND PBP RESULTS FOR MEDIUM TEMPERATURE DEDICATED CONDENSING REFRIGERATION SYSTEMS—OUTDOOR CONDENSER

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
Baseline	4,368	7,363	11,731	.....	.....	.....	.....	.....
TSL1	4,891	5,791	10,682	1,048	0	0	100	1.3
TSL2	5,387	4,766	10,153	1,577	0	0	100	2.5
TSL3	4,992	5,622	10,614	1,117	0	0	100	1.8
TSL4	5,286	4,936	10,222	1,509	0	0	100	2.0
TSL5	5,532	4,591	10,123	1,608	1	0	99	3.0
TSL6	5,532	4,591	10,123	1,608	1	0	99	3.0

TABLE V–11—SUMMARY LCC AND PBP RESULTS FOR MEDIUM-TEMPERATURE DEDICATED CONDENSING REFRIGERATION SYSTEMS—INDOOR CONDENSER

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
Baseline	4,033	7,746	11,779	.....	.....	.....	.....	.....
TSL1	4,501	6,998	11,499	280	1	0	99	3.2
TSL2	4,931	6,238	11,169	611	4	0	96	4.4
TSL3	4,501	6,998	11,499	280	1	0	99	3.2
TSL4	4,931	6,238	11,169	611	4	0	96	4.4
TSL5	4,931	6,238	11,169	611	4	0	96	4.4
TSL6	4,931	6,238	11,169	611	4	0	96	4.4

TABLE V–12—SUMMARY OF LCC AND PBP RESULTS FOR LOW-TEMPERATURE DEDICATED-CONDENSING REFRIGERATION SYSTEMS—OUTDOOR CONDENSER

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
Baseline	4,093	10,471	14,564	.....	.....	.....	.....	.....
TSL1	4,673	8,564	13,236	1,328	5	0	95	1.2
TSL2	5,377	6,791	12,168	2,001	5	0	95	2.3
TSL3	4,673	8,564	13,236	1,328	5	0	95	1.2

TABLE V–12—SUMMARY OF LCC AND PBP RESULTS FOR LOW-TEMPERATURE DEDICATED-CONDENSING REFRIGERATION SYSTEMS—OUTDOOR CONDENSER—Continued

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
TSL4	5,377	6,791	12,168	2,001	5	0	95	2.3
TSL5	5,591	6,584	12,175	1,994	5	0	95	2.8
TSL6	5,591	6,584	12,175	1,994	5	0	95	2.8

TABLE V–13—SUMMARY OF LCC AND PBP RESULTS FOR LOW-TEMPERATURE DEDICATED-CONDENSING REFRIGERATION SYSTEMS—INDOOR CONDENSER

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
Baseline	4,161	13,051	17,212	.....	.....	.....	.....	.....
TSL1	4,688	12,019	16,707	505	0	0	100	2.8
TSL2	5,187	11,018	16,205	1,117	0	0	100	2.7
TSL3	4,688	12,019	16,707	505	0	0	100	2.8
TSL4	5,187	11,018	16,205	1,117	0	0	100	2.7
TSL5	5,272	10,970	16,242	1,080	0	0	100	3.1
TSL6	5,272	10,970	16,242	1,080	0	0	100	3.1

TABLE V–14—SUMMARY LCC AND PBP RESULTS FOR MEDIUM- AND LOW-TEMPERATURE MULTIPLEX REFRIGERATION SYSTEMS

[Unit coolers only]

Trial standard level	Efficiency level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
		Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
						Net cost	No impact	Net benefit	Median
Medium Temperature Multiplex									
.....	Baseline	1,583	6,143	7,726	.....	.....	.....	.....	.....
TSL1	EL2	2,251	3,759	6,010	1,715	0	0	100	0.6
TSL2	EL2	2,231	3,771	6,002	1,724	0	0	100	0.5
TSL3	EL2	2,251	3,759	6,010	1,715	0	0	100	0.6
TSL4	EL2	2,231	3,771	6,002	1,724	0	0	100	0.5
TSL5	EL3	2,251	3,759	6,010	1,715	0	0	100	0.6
TSL6	EL3	2,251	3,759	6,010	1,715	0	0	100	0.6
Low Temperature Multiplex									
.....	Baseline	1,583	10,295	11,878	.....	.....	.....	.....	.....
TSL1	EL2	2,776	7,252	10,028	1,849	0	0	100	2.5
TSL2	EL2	2,231	7,585	9,817	2,061	0	0	100	0.4
TSL3	EL2	2,776	7,252	10,028	1,849	0	0	100	2.5
TSL4	EL2	2,231	7,585	9,817	2,061	0	0	100	0.4
TSL5	EL5	2,776	7,252	10,028	1,849	0	0	100	2.5
TSL6	EL5	2,776	7,252	10,028	1,849	0	0	100	2.5

TABLE V–15—SUMMARY LCC AND PBP RESULTS FOR STRUCTURAL AND FLOOR PANELS

[Weighted across all sizes]

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
Medium Temperature Structural Panel								
Baseline	1,007	97	1,104	.....	.....	.....	.....	.....
TSL1	1,007	97	1,104	16	14	0	86	3.8
TSL2	977	119	1,095	0	0	100	0	0.0

TABLE V–15—SUMMARY LCC AND PBP RESULTS FOR STRUCTURAL AND FLOOR PANELS—Continued

[Weighted across all sizes]

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of Consumers that experience			
					Net cost	No impact	Net benefit	Median
TSL3	1,043	85	1,128	−9	75	0	25	6.8
TSL4	1,007	80	1,088	8	34	0	66	4.5
TSL5	1,043	65	1,109	−22	93	0	7	9.0
TSL6	3,206	19	3,225	−2,139	100	0	0	146.4
Low Temperature Structural Panel								
Baseline	1,122	278	1,400	.....	.....	.....	.....	.....
TSL1	1,122	278	1,400	122	2	0	98	2.9
TSL2	1,010	399	1,410	0	0	100	0	0.0
TSL3	1,373	215	1,588	−66	79	0	21	7.4
TSL4	1,122	216	1,338	72	7	0	93	3.6
TSL5	1,373	161	1,533	−140	94	0	6	10.0
TSL6	3,208	76	3,284	−1,890	100	0	0	43.0
Low Temperature Floor Panel								
Baseline	1,202	243	1,445	.....	.....	.....	.....	.....
TSL1	1,202	243	1,445	66	6	0	94	3.5
TSL2	1,103	318	1,421	0	0	100	0	0.0
TSL3	1,348	166	1,515	−4	62	0	38	6.0
TSL4	1,202	189	1,390	30	28	0	72	4.5
TSL5	1,348	124	1,473	−65	88	0	12	8.0
TSL6	2,982	79	3,061	−1,653	100	0	0	48.7

TABLE V–16—SUMMARY LCC AND PBP RESULTS FOR DISPLAY DOORS

[Weighted across all sizes]

Trial standard level	Life-cycle cost (2012$)			Life-Cycle Cost Savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of consumers that experience			
					Net cost	No impact	Net benefit	Median
Medium Temperature Display Door								
Baseline	1,100	530	1,630	.....	.....	.....	.....	.....
TSL1	1,205	186	1,391	239	0	0	100	2.1
TSL2	1,205	180	1,385	228	0	0	100	2.2
TSL3	1,205	186	1,391	239	0	0	100	2.1
TSL4	1,205	180	1,385	228	0	0	100	2.2
TSL5	1,205	177	1,382	222	0	0	100	2.2
TSL6	4,182	73	4,255	−2,650	100	0	0	37.6
Low Temperature Display Door								
Baseline	1,594	1,412	3,006	.....	.....	.....	.....	.....
TSL1	1,756	1,033	2,789	217	0	0	100	N/A
TSL2	1,756	954	2,710	200	0	0	100	N/A
TSL3	2,046	972	3,019	−12	64	0	36	6.0
TSL4	1,756	954	2,710	200	0	0	100	N/A
TSL5	1,756	942	2,698	198	0	0	100	N/A
TSL6	4,242	371	4,613	−1,717	100	0	0	18.5

TABLE V–17—SUMMARY LCC AND PBP RESULTS FOR NON-DISPLAY DOORS

[Weighted across all sizes]

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of consumers that experience			
					Net cost	No impact	Net benefit	Median
Medium Temperature Passage Door								
Baseline	691	89	780	.....	.....	.....	.....	.....

TABLE V–17—SUMMARY LCC AND PBP RESULTS FOR NON-DISPLAY DOORS—Continued

[Weighted across all sizes]

Trial standard level	Life-cycle cost (2012$)			Life-cycle cost savings (2012$)				Payback period (years)
	Installed cost	Discounted operating cost	LCC	Average savings	% of consumers that experience			
					Net cost	No impact	Net benefit	Median
TSL1	691	89	780	2	27	0	73	4.5
TSL2	683	91	774	0	0	100	0	0.0
TSL3	691	89	780	2	27	0	73	4.5
TSL4	691	83	774	0	52	0	48	5.5
TSL5	691	80	772	0	64	0	36	6.0
TSL6	1,637	19	1,655	−884	100	0	0	78.7
Low Temperature Passage Door								
Baseline	1,070	2,205	3,274	.....	.....	.....	.....	.....
TSL1	1,070	2,205	3,274	74	14	0	86	4.3
TSL2	880	2,261	3,142	0	0	100	0	0.0
TSL3	1,226	2,138	3,364	−16	66	0	34	6.2
TSL4	1,070	2,020	3,090	52	27	0	73	4.7
TSL5	1,226	1,937	3,163	−52	75	0	25	7.0
TSL6	1,863	1,913	3,776	−665	100	0	0	18.3
Medium Temperature Freight Door								
Baseline	1,277	147	1,424	.....	.....	.....	.....	.....
TSL1	1,277	143	1,420	3	25	0	75	4.5
TSL2	1,265	144	1,409	0	0	100	0	0.0
TSL3	1,277	143	1,420	3	25	0	75	4.5
TSL4	1,277	131	1,408	1	50	0	50	5.4
TSL5	1,277	126	1,403	0	62	0	38	5.9
TSL6	2,511	49	2,560	−1,157	100	0	0	81.5
Low Temperature Freight Door								
Baseline	1,670	3,424	5,094	.....	.....	.....	.....	.....
TSL1	1,670	3,424	5,094	152	6	0	94	3.8
TSL2	1,426	3,491	4,917	0	0	100	0	0.0
TSL3	1,914	3,305	5,219	28	56	0	44	5.8
TSL4	1,543	3,237	4,780	136	1	0	99	2.9
TSL5	1,914	2,987	4,901	−32	69	0	31	6.5
TSL6	3,273	2,932	6,205	−1,337	100	0	0	21.7

b. Life-Cycle Cost Subgroup Analysis

Using the LCC spreadsheet model, DOE estimated the impact of increased WICF efficiency standards at each TSL on the following consumer subgroup: small restaurants that purchase their own walk-in units. These restaurants are typically identified by the Small Business Administration as restaurants with annual receipts of $10 million or less.[32] The small restaurant subgroup was analyzed because in the ''food service and drinking places'' business class in the 2007 Census,[33] almost 60 percent of employment and sales can be attributed to small restaurants and more than 78 percent of these establishments are considered small businesses. Furthermore, DOE received comments suggesting small restaurant owners could be particularly vulnerable to potential negative consequences of higher efficiency standards and potentially face shorter equipment lifetimes. DOE's LCC analysis shows that restaurants had among the highest financing costs (based on weighted average cost of capital of entities using walk-in coolers and freezers). Therefore, this group was expected to have the least LCC savings and longest PBP of any identifiable consumer group.

DOE estimated the LCC and PBP for the small restaurants subgroup. Table V–18 and Table V–19 show the LCC savings for refrigeration systems and envelope component equipment, respectively, which meet the proposed energy conservation standards for the small restaurant subgroup. Table V–20 and Table V–21 show the corresponding PBPs (in years) for this subgroup.

For example, DOE's analysis shows that at TSL 4, structural cooler panels for small restaurants have lower LCC savings and longer payback periods than other business types; however, LCC savings values are still positive for this subgroup at this TSL for panels. In addition, payback periods are typically increased by less than 10 percent compared with the walk-in market as a whole. For a more detailed discussion on the LCC subgroup analysis and its results, see chapter 11 of the TSD.

[32] Small Business Administration. ''Table of Small business Size Standards.'' *SBA.gov. http://www.sba.gov/content/guide-size-standards. Accessed July 2011.*

[33] U.S. CENSUS. 2007. U.S. Census Bureau American Fact Finder, *2002 Economic Census-*Sector 44: Retail Trade: Subject Series–Estab & Firm Size: Single Unit and Multiunit Firms for the United States: 2007, Washington, DC, Accessed July 2011. *http://www.census.gov/econ/census07/www/data_release_schedule/whats_been_released.html#44.*

TABLE V–18—LIFE-CYCLE COST SAVINGS FOR WICF REFRIGERATION SYSTEMS

[2012$]

Equipment class	Business	TSL1	TSL2	TSL3	TSL4	TSL5	TSL6
DC.M.I.006	Small Business	$67.25	$352.58	$67.25	$352.58	$352.58	$352.58
	All Business Types	70.30	370.28	70.30	370.28	370.28	370.28
DC.M.I.018	Small Business	1,294.98	1,762.74	1,294.98	1,762.74	1,762.74	1,762.74
	All Business Types	1,350.45	1,837.93	1,350.45	1,837.93	1,837.93	1,837.93
DC.M.O.006	Small Business	567.37	718.28	567.37	718.28	784.16	784.16
	All Business Types	589.85	748.02	748.02	589.85	818.57	818.57
DC.M.O.018	Small Business	1,749.53	2,761.13	1,749.53	2,761.13	2,761.13	2,761.13
	All Business Types	1,817.33	2,874.34	1,817.33	2,874.34	2,874.34	2,874.34
DC.M.O.054	Small Business	12,021.21	12,566.27	12,021.21	12,566.27	12,566.27	12,566.27
	All Business Types	12,493.74	13,068.28	12,493.74	13,068.28	13,068.28	13,068.28
DC.L.I.006	Small Business	754.45	1,073.48	754.45	1,073.48	1,035.60	1,035.60
	All Business Types	788.39	1,120.12	788.39	1,120.12	1,081.45	1,081.45
DC.L.I.009	Small Business	136.23	1,031.11	136.23	1,031.11	1,031.11	1,031.11
	All Business Types	142.04	1,112.07	142.04	1,112.07	1,077.14	1,077.14
DC.L.O.006	Small Business	1,764.83	1,747.88	1,764.83	1,747.88	1,773.85	1,773.85
	All Business Types	1,833.48	1,814.48	1,833.48	1,814.48	1,843.63	1,843.63
DC.L.O.009	Small Business	1,022.91	2,218.75	1,022.91	2,218.75	2,184.74	2,184.74
	All Business Types	1,059.59	2,307.72	1,059.59	2,307.72	2,273.00	2,273.00
DC.L.O.054	Small Business	13,619.19	14,061.17	13,619.19	14,061.17	13,231.20	13,231.20
	All Business Types	14,125.72	14,590.39	14,125.72	14,590.39	13,760.51	13,760.51

* Multiplex refrigeration systems are not typically used in small restaurants.

TABLE V–19—LIFE-CYCLE COST SAVINGS FOR WICF ENVELOPE COMPONENTS (PANELS AND DOORS)

[2012$]

Equipment class	Business	TSL1	TSL2	TSL3	TSL4	TSL5	TSL6
SP.M	Small Business	$12.65	.....	($8.05)	$6.20	($16.17)	($2,141.42)
	All Business Types	15.55	.....	(8.98)	7.63	(22.44)	(2,138.75)
SP.L	Small Business	109.66	.....	(75.54)	67.73	(92.45)	(1,901.81)
	All Business Types	121.93	.....	(65.50)	71.61	(139.77)	(1,890.34)
FP.L	Small Business	58.43	.....	(12.64)	26.98	(52.29)	(1,661.22)
	All Business Types	65.59	.....	(4.45)	30.28	(64.89)	(1,652.86)
DD.M	Small Business	225.18	214.71	225.17	214.71	209.52	(2,660.23)
	All Business Types	238.77	227.69	238.77	227.69	222.46	(2,650.38)
DD.L	Small Business	210.44	193.37	(11.78)	193.37	191.01	(1,739.58)
	All Business Types	217.30	200.08	(12.17)	200.08	197.59	(1,716.84)
PD.M	Small Business	1.80	.....	1.80	0.11	(0.88)	(886.46)
	All Business Types	2.13	.....	2.13	0.32	(0.30)	(883.91)
PD.L	Small Business	64.25	.....	(37.17)	42.91	(65.11)	(677.42)
	All Business Types	73.75	.....	(15.74)	51.91	(51.65)	(664.59)
FD.M	Small Business	2.96	.....	2.96	0.35	(6.14)	(1,160.14)
	All Business Types	3.46	.....	3.46	0.70	(0.24)	(1,156.91)
FD.L	Small Business	137.63	.....	13.37	126.39	(58.05)	(1,357.39)
	All Business Types	152.18	.....	27.62	136.42	(32.13)	(1,337.03)

Note: Dashes represent components at baseline efficiency and therefore do not have a payback period. Numbers in parentheses indicate negative values.

TABLE V–20—PAYBACK PERIOD FOR WICF REFRIGERATION SYSTEMS

[Years]

Equipment	Business	TSL1	TSL2	TSL3	TSL4	TSL5	TSL6
DC.M.I.006	Small Business	3.63	5.20	3.63	5.20	5.20	5.46
	All Business Types	3.40	4.88	3.40	4.88	4.88	4.88
DC.M.I.018	Small Business	2.31	2.28	2.31	2.28	2.28	2.28
	All Business Types	2.17	2.14	2.17	2.14	2.14	2.14
DC.M.O.006	Small Business	2.20	3.35	5.52	0.02	4.46	4.46
	All Business Types	2.11	3.21	3.21	2.11	4.30	4.30
DC.M.O.018	Small Business	1.02	2.64	1.02	2.64	2.64	2.64
	All Business Types	0.98	2.54	0.98	2.54	2.54	2.54
DC.M.O.054	Small Business	1.02	1.79	1.02	1.79	1.79	1.79
	All Business Types	0.98	1.74	0.98	1.74	1.74	1.74
DC.L.I.006	Small Business	3.52	2.74	3.52	2.74	3.16	3.16
	All Business Types	3.32	2.58	3.32	2.58	2.98	2.98
DC.L.I.009	Small Business	2.19	2.22	2.19	2.22	3.35	3.35
	All Business Types	2.07	2.78	2.07	2.78	3.16	3.16
DC.L.O.006	Small Business	2.10	1.77	2.10	1.77	2.88	2.88

TABLE V–20—PAYBACK PERIOD FOR WICF REFRIGERATION SYSTEMS—Continued

[Years]

Equipment	Business	TSL1	TSL2	TSL3	TSL4	TSL5	TSL6
	All Business Types	2.03	1.72	2.03	1.72	2.80	2.80
DC.L.O.009	Small Business	0.76	2.93	0.76	2.93	3.12	3.12
	All Business Types	0.74	2.84	0.74	2.84	3.02	3.02
DC.L.O.054	Small Business	0.50	0.63	0.50	0.63	3.23	3.23
	All Business Types	0.48	0.61	0.48	0.61	3.15	3.15

* Multiplex refrigeration systems are not typically used in small restaurants.

TABLE V–21—PAYBACK PERIOD FOR WICF ENVELOPE COMPONENTS (PANELS AND DOORS)

[Years]

Equipment	Business	TSL1	TSL2	TSL3	TSL4	TSL5	TSL6
SP.M	Small Business	3.77		6.77	4.46	8.92	146.06
	All Business Types	3.81		6.80	4.49	8.95	146.40
SP,L	Small Business	2.82		7.33	3.60	9.86	42.58
	All Business Types	2.85		7.43	3.63	9.95	42.97
FP.L	Small Business	3.47		5.88	4.42	7.92	48.28
	All Business Types	3.50		5.96	4.46	7.99	48.69
DD.M	Small Business	2.10	2.17	2.10	2.17	2.21	37.28
	All Business Types	2.13	2.19	2.13	2.19	2.22	37.56
DD.L	Small Business	N/A	N/A	6.20	N/A	N/A	18.91
	All Business Types	N/A	N/A	6.01	N/A	N/A	18.48
PD.M	Small Business	4.52		4.52	5.48	6.01	78.77
	All Business Types	4.54		4.54	5.51	6.03	78.73
PD.L	Small Business	4.26		6.22	4.70	7.02	18.26
	All Business Types	4.27		6.23	4.69	7.02	18.31
FD.M	Small Business	4.44		4.44	5.38	5.90	81.55
	All Business Types	4.46		4.46	5.41	5.92	81.51
FD.L	Small Business	3.76		5.76	2.92	6.54	21.62
	All Business Types	3.76		5.77	2.92	6.54	21.70

Note: Dashes represent components at baseline efficiency and therefore do not have a payback period.

2. Economic Impacts on Manufacturers

DOE performed a manufacturer impact analysis (MIA) to estimate the impact of new energy conservation standards on manufacturers of walk-in cooler and freezer refrigeration, panels, and doors. The section below describes the expected impacts on manufacturers at each considered TSL. Chapter 12 of the TSD explains the analysis in further detail.

a. Industry Cash-Flow Analysis Results

Table V–22 through Table V–24 depict the financial impacts on manufacturers and the conversion costs DOE estimates manufacturers would incur at each TSL. The financial impacts on manufacturers are represented by changes in industry net present value (INPV).

The impact of energy efficiency standards were analyzed under two markup scenarios: (1) The preservation of gross margin percentage and (2) the preservation of operating profit. As discussed in section IV.I.2.b, DOE considered the preservation of gross margin percentage scenario by applying a uniform ''gross margin percentage'' markup across all efficiency levels. As production cost increases with efficiency, this scenario implies that the absolute dollar markup will increase. DOE assumed the nonproduction cost markup—which includes SG&A expenses; research and development expenses; interest; and profit to be 1.32 for panels, 1.50 for solid doors, 1.62 for display doors, and 1.35 for refrigeration. These markups are consistent with the ones DOE assumed in the engineering analysis and the base case of the GRIM. Manufacturers have indicated that it is optimistic to assume that as their production costs increase in response to an efficiency standard, they would be able to maintain the same gross margin percentage markup. Therefore, DOE assumes that this scenario represents a high bound to industry profitability under an energy-conservation standard.

The preservation of earnings before interest and taxes (EBIT) scenario reflects manufacturer concerns about their inability to maintain their margins as manufacturing production costs increase to reach more-stringent efficiency levels. In this scenario, while manufacturers make the necessary investments required to convert their facilities to produce new standards-compliant equipment, operating profit does not change in absolute dollars and decreases as a percentage of revenue.

Each of the modeled scenarios results in a unique set of cash flows and corresponding industry values at each TSL. In the following discussion, the INPV results refer to the difference in industry value between the base case and each standards case that result from the sum of discounted cash flows from the base year 2013 through 2046, the end of the analysis period. To provide perspective on the short-run cash flow impact, DOE includes in the discussion of the results a comparison of free cash flow between the base case and the standards case at each TSL in the year before new standards take effect.

Table V–22 through Table V–24 show the MIA results for each TSL using the markup scenarios described above for WICF panel, door and refrigeration manufacturers, respectively:

TABLE V–22—MANUFACTURER IMPACT ANALYSIS RESULTS FOR WICF PANELS

	Units	Base case	Trial standard level					
			1	2	3	4	5	6
INPV	2012 $M	207.3	182.2 to 195.8	207.3 to 207.3	144.1 to 177.0	182.2 to 195.8	144.1 to 177.0	−212.9 to 441.9.
Change in INPV	2012 $M		−25.0 to −11.5	0.0 to 0.0	−63.1 to −30.2	−25.0 to −11.5	−63.1 to −30.2	−420.2 to 234.7.
	%		−12.1 to −5.6	0.0 to 0.0	−30.5 to −14.6	−12.1 to −5.6	−30.5 to −14.6	−202.7 to 113.2.
Free Cash Flow (FCF) (2016).	2012 $M	18.4	10.7	18.4	−3.4	10.7	−3.4	−54.6.
Change in FCF (2016).	2012 $M		−7.7	0.0	−21.8	−7.7	−21.8	−73.0.
	%		−41.6	0.0	−118.7	−41.6	−118.7	−396.9.
Conversion Costs.	2012 $M		21	0	58	21	58	195.

TABLE V–23—MANUFACTURER IMPACT ANALYSIS RESULTS FOR WICF DOORS

	Units	Base case	Trial standard level					
			1	2	3	4	5	6
INPV	2012 $M	454.6	437.6 to 470.7	446.2 to 470.2	428.2 to 467.8	437.8 to 470.6	427.3 to 466.4	260.8 to 1145.1.
Change in INPV	2012 $M		−17.0 to 16.1	−8.4 to 15.6	−26.4 to 13.2	−16.8 to 16.0	−27.3 to 11.8	−193.8 to 690.5.
	%		−3.7 to 3.5	−1.8 to 3.4	−5.8 to 2.9	−3.7 to 3.5	−6.0 to 2.6	−42.6 to 151.9.
FCF (2016)	2012 $M	36.1	34.1	36.1	30.4	34.1	30.5	0.6.
Change in FCF (2016).	2012 $M		−2.07	0.00	−5.7	−2.1	−5.7	−35.6.
	%		−5.7	0.0	−15.8	−5.7	−15.7	−98.5.
Conversion Costs.	2012 $M		6	0.0	15	6	15	92.

TABLE V–24—MANUFACTURER IMPACT ANALYSIS RESULTS FOR WICF REFRIGERATION SYSTEMS

	Units	Base case	Trial standard level					
			1	2	3	4	5	6
INPV	2012 $M	189.1	170.9 to 183.3	153.6 to 184.8	170.9 to 183.3	153.6 to 184.8	145.8 to 188.3	145.8 to 188.3.
Change in INPV	2012 $M		−18.3 to −5.9	−35.5 to −4.4	−18.3 to −5.9	−35.5 to −4.4	−43.3 to −0.8	−43.3 to −0.8.
	%		−9.7 to −3.1	−18.8 to −2.3	−9.7 to −3.1	−18.8 to −2.3	−22.9 to −0.4	−22.9 to −0.4.
FCF (2016)	2012 $M	16.3	11.7	9.1	11.7	9.1	8.0	8.0.
Change in FCF (2016).	2012 $M		−4.6	−7.2	−4.6	−7.2	−8.3	−8.3.
	%		−28.2	−44.0	−28.2	−44.0	−51.0	−51.0.
Conversion Costs.	2012 $M		15	24	15	24	28	28.

Walk-In Cooler and Freezer Panel MIA Results

At TSL 1, DOE models the impacts on panel INPV to be negative under both mark-up scenarios. The change in panel INPV ranges from −$25.0 million to −$11.5 million, or a change in INPV of −12.1 percent to −5.6 percent. At this level, panel industry free cash flow [34] is estimated to decrease by as much as $7.7 million, or 41.6 percent compared to the base-case value of $18.4 million in 2016, the year before the compliance date. The primary driver of the drop in INPV is the standard for low-temperature side panels, which goes up to EL 2. At EL 2, manufacturers would likely use 5-inch thick side panels for low-temperature applications to meet the panel standard. At this level, DOE estimates conversion costs to be $21 million for the industry.

At TSL 2, the standard for all panel equipment classes are set to the baseline efficiency. As a result, there are no changes to INPV, no changes in industry free cash flow, and no conversion costs.

At TSL 3, DOE estimates impacts on panel INPV to range from −$63.1 million to −$30.2 million, or a change in INPV of −30.5 percent to −14.6 percent. At this level, panel industry free cash flow is estimated to decrease by as much as $21.8 million, or 118.7% compared to the base-case value of $18.4 million in the year before the compliance date. The large percentage drop in cash flow in the GRIM indicates that conversion costs are high relative to the size of the industry and relative to annual operating profits. Conversion costs are expected to total $58 million. The conversion costs are driven by the need for 6-inch panels for both low temperature floor and side panels, as described in section 12.4.8 of the TSD. During manufacturer interviews, some panel manufacturers stated they would evaluate leaving the industry rather than make the required investments to meet the standard.

At TSL 4, the standard for all panel equipment classes are identical to those at TSL 1.

DOE estimates TSL 5 impacts on panel INPV to be range from −$63.1 million to −$30.2 million, or a change in INPV of −30.5 percent to −14.6 percent. At this level, panel industry free cash flow is estimated to decrease by as much as $21.8 million, or 118.7 percent compared to the base-case value of $18.4 million in the year before the compliance date. At this TSL, conversion costs total $58 million for the industry. These conversion costs are based on DOE's analysis indicating that industry would likely adopt 6-inch side floor panels to meet the standard. As in TSL 3, some panel manufacturers would likely leave the industry at this level of burden.

[34] Free cash flow (FCF) is a metric commonly used in financial valuation. DOE calculates this value by adding back depreciation to net operating profit after tax and subtracting increases in working capital and capital expenditures.

TSL 6 represents the use of max-tech design options for all equipment classes. DOE estimates impacts on panel INPV to be range from −$420.2 million to $234.7 million, or a change in INPV of −202.7 percent to 113.2 percent. At this level, panel industry free cash flow is estimated to decrease by as much as $73.0 million, or 396.9 percent compared to the base-case value of $18.4 million in the year before the compliance date. Impacts at the most negative end of the range would likely force many manufacturers out of the industry.

Walk-In Cooler and Freezer Door MIA Results

For TSL 1, DOE models the change in INPV for doors to range from −$17.0 million to $16.1 million, or a change in INPV of −3.7 percent to 3.5 percent. At this standard level, door industry free cash flow is estimated to decrease by as much as $2.1 million, or 5.7 percent compared to the base case value of $36.1 million in the year before the compliance date. DOE expects solid door manufacturers to pursue design options that reduce the loss of heat through door frames and through embedded windows. Changes to door frame design may require new tooling. Total conversion costs for the door industry are expected to reach $6 million.

At TSL 2, DOE estimates the impacts on door INPV to range from −$8.4 million to $15.6 million, or a change in INPV of −1.8 percent to 3.4 percent. At this level, door industry free cash flow is estimated to decrease by a negligible amount in the year before the compliance year. Furthermore, there are minimal conversion costs. To meet the standard, display door manufacturers would need to replace existing lighting with LEDs and reduce anti-sweat wire energy consumption. For solid door manufacturers, the standard is set at the baseline. Total conversion costs are expected to total $0.1 million for the industry. These costs are primarily product conversion costs associated incorporating heater wire controls and updating marketing literature.

For TSL 3, DOE estimates the change in door INPV to range from −$26.4 million to $13.2 million, or a change in INPV of −5.8 percent to 2.9 percent. At this level, door industry free cash flow is estimated to decrease by as much as $5.7 million, or 15.8 percent compared to the base-case value of $36.1 million in the year before the compliance date. At this level, display doors would need to incorporate lighting sensors. Solid doors for low temperature walk-ins would likely need to be redesigned to 6-inches of thickness. The additional production equipment and the cost of product redesigns drive conversion costs up to $15 million, more than double the conversion costs at TSL 1 and TSL 2. This conversion cost number assumes that manufacturers that produce both panels and solid doors would use the same foaming equipment and presses to produce both products since DOE models panel manufacturers also going to 6-inch side panels for low temperature applications at TSL 3. Manufacturers that exclusively produce freight doors and passage doors will not be able to spread their investment over as many equipment classes.

For TSL 4, DOE estimates impacts on door INPV to range from −$16.8 million to $16.0 million, or a change in INPV of −3.7 percent to 3.5 percent. At this considered level, door industry free cash flow is estimated to decrease by as much as $2.1 million, or 5.7 percent compared to the base-case value of $36.1 million in the year before the compliance date. The standard levels for doors at TSL 4 are nearly identical to the standard levels at TSL 2, except that the standard is one efficiency level lower for the low temperature freight door equipment class. As mentioned above, DOE expects display door manufacturers to pursue design changes that do not require new manufacturing equipment. Manufacturers are expected to use LEDs in display doors and reduce anti-sweat wire energy consumption for medium temperature applications. DOE expects solid door manufacturers to pursue design options that reduce the loss of heat through door frames and through embedded windows. Changes to door frame design may require new tooling. Total conversion costs are expected to reach $6 million for the industry.

For TSL 5, DOE estimates impacts on door INPV to range from −$27.3 million to $11.8 million, or a change in INPV of −6.0 percent to 2.6 percent, at TSL 5. At this level, door industry free cash flow is estimated to decrease by as much as $5.7 million, or 15.7 percent compared to the base-case value of $36.1 million in the year before the compliance date. This standard level for doors at TSL 5 is nearly identical to the standard levels at TSL 3. Total conversion costs are expected to reach $15 million.

For TSL 6, DOE estimates impacts on door INPV to range from −$193.8 million to $690.5 million, or a change in INPV of −42.6 percent to 151.9 percent. At this level, door industry free cash flow is estimated to decrease by as much $35.6 million, or 98.5 percent compared to the base-case value of $36.1 million in the year before the compliance date. Conversion costs would total $92 million. At this level, some door manufacturers would likely choose to leave the industry rather than make the necessary investments to comply with standards.

Walk-In Cooler and Freezer Refrigeration MIA Results

At TSL 1, DOE estimates impacts on refrigeration INPV to range from −$18.3 million to −$5.9 million, or a change in INPV of −9.7 percent to −3.1 percent. At this level, refrigeration industry free cash flow is estimated to decrease by as much as $4.6 million, or 28.2 percent compared to the base-case value of $16.3 million in 2016, the year before the compliance year. For dedicated condensing, medium temperature, indoor refrigeration systems, DOE's engineering analysis indicates that manufacturers would need to incorporate multiple design options to achieve this standard. The design options would likely include variable speed evaporator fan motors and larger condensing coils. For dedicated condensing, low temperature, indoor refrigeration systems, manufacturers may need to further include improved condenser fan, improved evaporator fan blades, and electronically commutated motors. For dedicated condensing, medium temperature, outdoor refrigeration systems, design options necessary to meet TSL 1 would include variable speed evaporator fan motors, improved condenser fan blades, electronically commutated condenser fan motors, and improved evaporator fan blades. For dedicated condensing, low temperature, outdoor refrigeration systems, additional design options required to meet the trial standard level include ambient sub-cooling, variable speed condenser fans, and defrost control strategies. For multiplex refrigeration, manufacturers would need to evaluate design improvements, such as variable speed evaporator fan motors, improved fan blade designs, defrost control, and hot gas defrost. Integration of these design options across equipment classes will require extensive engineering investments. As a result, conversion costs total $15 million for the industry.

At TSL 2, DOE estimates impacts on refrigeration INPV to range from −$35.5 million to −$4.4 million, or a change in INPV of −18.8 percent to −2.3 percent. At this level, refrigeration industry free cash flow is estimated to decrease by as much as $7.2 million, or 44.0 percent compared to the base-case value of $16.3 million in the year before the compliance date. From TSL 1 to TSL 2,

standards increase for most equipment classes. For dedicated condensing, medium temperature, indoor systems, a manufacturer would need to consider including electronically commutated condenser fan motors, improved condenser fan blades, and improved evaporator fan blades. For dedicated condensing, medium temperature, outdoor systems, the most cost effective options include using ambient subcooling, variable speed condenser fan motors, and floating head pressure with electronic expansion valves. For dedicated condensing, low temperature, outdoor systems, manufacturers will need to consider incorporating improved evaporator fan blades, larger condenser coils, and floating head pressure with electronic expansion valves. The range of changes does not require significant amounts of new production equipment, but could require substantial development and engineering time. DOE estimates the WICF refrigeration industry's conversion costs to increase to $24 million.

At TSL 3, the standards and the impacts on the walk-in refrigeration industry are identical to those at TSL 1.

At TSL 4, the standards and the impacts on the walk-in refrigeration industry are identical to those at TSL 2.

TSL 5 and TSL 6 represent max-tech for WICF refrigeration systems. DOE estimates impacts on refrigeration INPV to range from −$43.3 million to −$0.8 million, or a change in INPV of −22.9 percent to −0.4 percent. At this level, refrigeration industry free cash flow is estimated to decrease by as much as $8.3 million, or 51.0 percent compared to the base-case value of $16.3 million in the year before the compliance year. DOE's engineering analysis indicates that manufacturers would need to incorporate design changes beyond those for TSL 4 and TSL 3 to achieve this standard. Additional design changes for dedicated condensing, low temperature, indoor and outdoor refrigeration would include defrost controls. For multiplex units, the standard levels at TSL 5 and 6 are identical to those at TSL 1. Total conversion costs are expected to reach $28 million for the industry.

b. Impacts on Direct Employment

Methodology

To quantitatively assess the impacts of energy conservation standards on employment, DOE used the GRIM to estimate the domestic labor expenditures and number of employees in the base case and at each TSL from 2013 through 2046. DOE used statistical data from the U.S. Census Bureau's 2011 Annual Survey of Manufacturers (ASM), the results of the engineering analysis, and interviews with manufacturers to determine the inputs necessary to calculate industry-wide labor expenditures and domestic employment levels. Labor expenditures related to manufacturing of the product are a function of the labor intensity of the product, the sales volume, and an assumption that wages remain fixed in real terms over time. The total labor expenditures in each year are calculated by multiplying the MPCs by the labor percentage of MPCs.

The total labor expenditures in the GRIM were then converted to domestic production employment levels by dividing production labor expenditures by the annual payment per production worker (production worker hours multiplied by the labor rate found in the U.S. Census Bureau's 2011 ASM). The estimates of production workers in this section cover workers, including line supervisors who are directly involved in fabricating and assembling a product within the OEM facility. Workers performing services that are closely associated with production operations, such as materials handling tasks using forklifts, are also included as production labor. DOE's estimates only account for production workers who manufacture the specific products covered by this rulemaking. To further establish a lower bound to negative impacts on employment, DOE reviewed design options, conversion costs, and market share information to determine the maximum number of manufacturers that would leave the industry at each TSL.

In evaluating the impact of energy efficiency standards on employment, DOE performed separate analyses on all three walk-in component manufacturer industries: panels, doors and refrigeration systems.

Using the GRIM, DOE estimates in the absence of new energy conservation standards, there would be 3,482 domestic production workers for walk-in panels, 1,187 domestic production workers for walk-in doors, and 346 domestic production workers for walk-in refrigeration systems in 2017.

Table V–25, Table V–26, and Table V–27 show the range of the impacts of potential new energy conservation standards on U.S. production workers in the panel, door, and refrigeration system markets, respectively. Additional detail on the analysis of direct employment can be found in chapter 12 of the TSD.

TABLE V–25—POTENTIAL CHANGES IN THE TOTAL NUMBER OF DOMESTIC PRODUCTION WORKERS IN 2017 FOR PANELS

TSL	1	2	3	4	5	6
Potential Changes in Domestic Production Workers 2017 (from a base case employment of 3,462).	−435 to 134	0	−871 to 490	−435 to 134	−871 to 490	−1,741 to 3,243

TABLE V–26—POTENTIAL CHANGES IN THE TOTAL NUMBER OF DOMESTIC PRODUCTION WORKERS IN 2017 FOR DOORS

TSL	1	2	3	4	5	6
Potential Changes in Domestic Production Workers 2017 (from a base case employment of 1,187).	−60 to 149	0 to 97	−120 to 196	−60 to 146	−120 to 192	−349 to 2,409

TABLE V–27—POTENTIAL CHANGES IN THE TOTAL NUMBER OF DOMESTIC PRODUCTION WORKERS IN 2017 FOR REFRIGERATION SYSTEMS

TSL	1	2	3	4	5	6
Potential Changes in Domestic Production Workers 2017 (from a base case employment of 346).	0 to 31	−88 to 74	0 to 31	−88 to 74	−116 to 99	−116 to 99

The employment impacts shown in Table V–25 through Table V–27 represent the potential production employment changes that could result following the compliance date of new energy conservation standards. The upper end of the results in the table estimates the maximum increase in the number of production workers after the implementation of new energy conservation standards and it assumes that manufacturers would continue to produce the same scope of covered products within the United States. The lower end of the range represents the maximum decrease to the total number of U.S. production workers in the industry due to manufacturers leaving the industry. However, in the long-run, DOE would expect the manufacturers that do not leave the industry to add employees to cover lost capacity and to meet market demand.

The employment impacts shown are independent of the employment impacts from the broader U.S. economy, which are documented in the Employment Impact Analysis, chapter 13 of the TSD.

c. Impacts on Manufacturing Capacity

Panels

Manufacturers indicated that design options that necessitate thicker panels could lead to longer production times for panels. In general, every additional inch of foam increases panel cure times by roughly 20 minutes. DOE understands from manufacturer interviews, however, that the industry is not currently operating at full capacity. Given this fact, and the number of manufacturers able to produce panels above the baseline today, an increase in thickness at lower panel standards—that is, a standard that is based on 4-inch or 5-inch panels—is not likely to lead to product shortages in the industry. However, a standard that necessitates 6-inch panels for any of the panel equipment classes would require manufacturers to add equipment to maintain throughput due to longer curing times or to purchase all new tooling to enable production if the manufacturer's current equipment cannot accommodate 6-inch panels. These conversion costs are discussed further in chapter 12 of the TSD.

Doors

Display door manufacturers did not identify any design options which would lead to capacity constraints. However, manufacturers commented on differences between the two types of low-emittance coatings analyzed: hard low emittance coating (''hard-coat''), the baseline option, and soft low emittance coating (''soft-coat''), the corresponding design option. Hard-coat is applied to the glass pane at high temperatures during the formation of the pane and is extremely durable, while soft-coat is applied in a separate step after the glass pane is formed and is less durable than hard low emittance coating but has better performance characteristics. Manufacturers indicated that soft-coat is significantly more difficult to work with and may require new conveyor equipment. As manufacturers adjust to working with soft-coat, longer lead times may occur.

The production of solid doors is very similar to the production of panels and faces the same capacity challenges as panels. As indicated in the panel discussion above, DOE does not anticipate capacity constraints at a standard that moves manufacturers to 5 inches of thickness.

Refrigeration

DOE did not identify any significant capacity constraints for the design options being evaluated for this rulemaking. For most refrigeration manufacturers, the walk-in market makes up a relatively small percentage of their overall revenues. Additionally, most of the design options being evaluated are available as product options today. As a result, the industry should not experience capacity constraints directly resulting from an energy conservation standard.

d. Impacts on Small Manufacturer Sub-Group

As discussed in section IV.I.1, using average cost assumptions to develop an industry cash-flow estimate may not be adequate for assessing differential impacts among manufacturer sub-groups. Small manufacturers, niche equipment manufacturers, and manufacturers exhibiting a cost structure substantially different from the industry average could be affected disproportionately. DOE used the results of the industry characterization to group manufacturers exhibiting similar characteristics. Consequently, DOE analyzes small manufacturers as a sub-group.

DOE evaluated the impact of new energy conservation standards on small manufacturers, specifically ones defined as ''small businesses'' by the SBA. The SBA defines a ''small business'' as having 750 employees or less for NAICS 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.'' Based on this definition, DOE identified 2 refrigeration system manufacturers, 42 panel manufacturers, and 5 door manufacturers in the WICF industry that are small businesses. DOE describes the differential impacts on these small businesses in today's notice at section VI.B, Review Under the Regulatory Flexibility Act.

Section VI.B concludes that larger manufacturers could have a competitive advantage in multiple component markets due to their size, engineering and testing resources, and ability to access capital. Additionally, in some market segments, larger manufacturers have significantly higher production volumes over which to spread costs. In particular, DOE's analysis shows that this rule could drive consolidation in the walk-in cooler and freezer panel industry. While DOE cannot certify that today's rule would not have a significant economic impact on a substantial number of small manufacturers, DOE has considered these potential impacts and sought to mitigate any such impacts in choosing the TSL proposed in today's rule. For example, DOE specifically considered TSL 2, which would not raise the efficiency requirement on panel manufacturers above the base case level in order to minimize impacts on panel manufacturers. . In addition to the range of TSLs considered, alternatives to the proposed rule that were considered include the following policy alternatives: (1) No new regulatory action, (2) commercial consumer rebates, and (3) commercial consumer tax credits. Chapter 17 of the TSD associated with this proposed rule includes a report referred to in Section VI.A in the preamble as the regulatory impact analysis (RIA). The energy savings of these regulatory alternatives are one to two orders of magnitude smaller than those expected from the standard levels under consideration. The range of economic impacts of these regulatory alternatives is an order of magnitude smaller than the range of impacts expected from the standard levels under consideration. For a complete discussion of the impacts on small businesses, see section VI.B and chapter 12 of the TSD.

e. Cumulative Regulatory Burden

While any one regulation may not impose a significant burden on manufacturers, the combined effects of several impending regulations may have serious consequences for some manufacturers, groups of manufacturers, or an entire industry. Assessing the impact of a single regulation may overlook this cumulative regulatory burden. Multiple regulations affecting the same manufacturer can strain profits

and can lead companies to abandon product lines or markets with lower expected future returns than competing products. For these reasons, DOE conducts an analysis of cumulative regulatory burden as part of its rulemakings pertaining to appliance and equipment efficiency.

For the cumulative regulatory burden analysis, DOE looks at other regulations that could affect walk in cooler and freezer manufacturers that will take effect approximately 3 years before or after the compliance date of new energy conservation standards for these products. In addition to the new energy conservation regulations on walk-ins, several other Federal regulations apply to these products and other equipment produced by the same manufacturers. While the cumulative regulatory burden focuses on the impacts on manufacturers of other Federal requirements, DOE also describes a number of other regulations in section VI.B because it recognizes that these regulations also impact the products covered by this rulemaking.

Companies that produce a wide range of regulated products may be faced with more capital and product development expenditures than competitors with a narrower scope of products. Regulatory burdens can prompt companies to exit the market or reduce their product offerings, potentially reducing competition. Smaller companies in particular can be affected by regulatory costs since these companies have lower sales volumes over which they can amortize the costs of meeting new regulations. DOE discusses below the regulatory burdens manufacturers could experience, mainly, DOE regulations for other products or equipment produced by walk-in manufacturers and other Federal requirements including the United States Clean Air Act, the Energy Independence and Security Act of 2007. While this analysis focuses on the impacts on manufacturers of other Federal requirements, in this section DOE also describes a number of other regulations that could also impact the WICF equipment covered by this rulemaking: potential climate change and greenhouse gas legislation, State conservation standards, and food safety regulations. DOE discusses these and other requirements, and includes the full details of the cumulative regulatory burden, in chapter 12 of the NOPR TSD.

DOE Regulations for Other Products Produced by Walk-In Cooler and Freezer Manufacturers

In addition to the new energy conservation standards on walk in cooler and freezer equipment, several other Federal regulations apply to other products produced by the same manufacturers. DOE recognizes that each regulation can significantly affect a manufacturer's financial operations. Multiple regulations affecting the same manufacturer can strain manufacturers' profits and possibly cause an exit from the market. DOE is conducting an energy conservation standard rulemaking for commercial refrigeration equipment. In its Notice of Proposed Rulemaking for commercial refrigeration equipment, DOE initially estimated conversion costs for the CRE industry to total $87.5 million. Conversion costs are one-time expenses the industry will bear between the announcement date of the standard and the effective date of the standard.

Federal Clean Air Act

The Clean Air Act defines the EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. The most significant of these additional regulations is the EPA-mandated phase-out of hydrochlorofluorocarbons (HCFCs). The Act requires that, on a quarterly basis, any person who produced, imported, or exported certain substances, including HCFC refrigerants, report the amount produced, imported and exported. Additionally—effective January 1, 2015—selling, manufacturing, and using any such substance is banned unless such substance (1) has been used, recovered, and recycled; (2) is used and entirely consumed in the production of other chemicals; or (3) is used as a refrigerant in appliances manufactured prior to January 1, 2020. Finally, production phase-outs will continue until January 1, 2030 when such production will be illegal. These bans could trigger design changes to natural or low global warming potential refrigerants and could impact the insulation used in products covered by this rulemaking.

State Conservation Standards

Since 2004, the State of California has had established energy standards for walk-in coolers and freezers. California's Code of Regulations (Title 20, Section 1605) prescribe requirements for insulation levels, motor types, and use of automatic door-closers used for WICF applications. These requirements have since been amended and mirror those standards that Congress prescribed as part of EISA 2007. Other States, notably, Connecticut, Maryland, and Oregon, have recently established energy efficiency standards for walk-ins that are also identical to the ones contained in EPCA. These standards would not be preempted until any Federal standards that DOE may adopt take effect. See 42 U.S.C. 6316(h)(2). Once DOE's standards are finalized, all other State standards that are in effect would be pre-empted. As a result, these State standards do not pose any regulatory burden above that which has already been established in EPCA.

Food Safety Standards

Manufacturers expressed concern regarding Federal, State, and local food safety regulations. A walk-in must perform to the standards set by NSF, state, country, and city health regulations. There is general concern among manufacturers about conflicting regulation scenarios as new energy conservation standards may potentially prevent or make it more difficult for them to comply with food safety regulations.

3. National Impact Analysis

a. Amount and Significance of Energy Savings

To estimate the national energy savings attributable to the TSLs under consideration, DOE compared the energy consumption of the refrigeration systems under the base case to their anticipated energy consumption under each TSL. Because all the TSLs except TSL 6 combine high efficiency refrigeration systems with envelope components having small efficiency gains over the baseline levels, DOE projected that the additional impact from higher efficiency levels for envelope components on the capacity of refrigeration systems sold for each system, and subsequently on the aggregate shipped capacity, would not significantly impact the energy savings estimate for each TSL. Consequently, DOE calculated the baseline energy consumption and the energy savings for higher efficiency refrigeration systems independent of the envelope component efficiency level at the TSLs considered. DOE did, however, estimate this reduction in capacity from improved envelope component efficiency on an aggregate basis at each TSL and accounted for the economic benefit in the calculation of the national net present value for each TSL as discussed in section V.3.b.

By contrast, the energy savings benefits for the envelope components are influenced directly by the efficiency of the refrigeration system. Because of this, the energy savings for the envelope levels are calculated such that both the baseline and the higher efficiency

envelope components are paired with the refrigeration system at the efficiency level corresponding to the specific TSL.

Table V–28 through Table V–30 present DOE's forecasts of the national primary energy savings for each TSL of the refrigeration systems and selected envelope components, and the combination of refrigeration systems and envelope components. In addition Table V–30 shows the FFC energy savings for each TSL. These forecasts were calculated using the approach described in section IV.G. Chapter 10 of the NOPR TSD presents tables that also show the magnitude of the energy savings.

TABLE V–28—WICF REFRIGERATION SYSTEMS: CUMULATIVE NATIONAL ENERGY SAVINGS IN QUADS

[Primary energy savings]

Equipment class	Trial standard levels			
	1,3	2,4	5	6
DC.M.I*	0.024	0.041	0.041	0.041
DC.M.O*	1.825	2.446	2.524	2.524
DC.L.I*	0.009	0.016	0.017	0.017
DC.L.O*	0.768	1.162	1.256	1.256
MC.M	0.378	0.376	0.378	0.378
MC.L	0.099	0.084	0.099	0.099

* For DC refrigeration systems, results include both capacity ranges.

TABLE V–29—COMPONENT EQUIPMENT CLASS: CUMULATIVE NATIONAL ENERGY SAVINGS IN QUADS

[Primary energy savings]

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	0.259	0.000	0.324	0.221	0.273	0.553
SP.L	0.447	0.000	0.564	0.380	0.447	0.619
FP.L	0.048	0.000	0.069	0.040	0.055	0.069
DD.M	0.405	0.394	0.405	0.394	0.394	0.620
DD.L	0.021	0.020	0.029	0.020	0.020	0.095
PD.M	0.009	0.000	0.009	0.007	0.007	0.073
PD.L	0.113	0.000	0.141	0.106	0.128	0.140
FD.M	0.000	0.000	0.000	0.000	0.000	0.004
FD.L	0.010	0.000	0.013	0.007	0.012	0.013

TABLE V–30—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: CUMULATIVE NATIONAL PRIMARY AND FULL-FUEL CYCLE ENERGY SAVINGS IN QUADS

Application	Trial standard levels					
	1	2	3	4	5	6
Medium Temperature	2.900	3.257	2.965	3.486	3.617	4.193
Low Temperature	1.515	1.283	1.692	1.816	2.032	2.308
Primary Energy Savings Total	4.415	4.540	4.658	5.302	5.649	6.501
Upstream Energy Savings	0.072	0.074	0.076	0.086	0.092	0.106
FFC Total	4.487	4.614	4.734	5.388	5.741	6.607

Circular A–4 requires agencies to present analytical results, including separate schedules of the monetized benefits and costs that show the type and timing of benefits and costs. Circular A–4 also directs agencies to consider the variability of key elements underlying the estimates of benefits and costs. For this rulemaking, DOE undertook a sensitivity analysis using nine rather than 30 years of product shipments. The choice of a 9-year period is a proxy for the timeline in EPCA for the review of certain energy conservation standards and potential revision of and compliance with such revised standards. We would note that the review timeframe established in EPCA generally does not overlap with the product lifetime, product manufacturing cycles or other factors specific to walk-in coolers and freezers. Thus, this information is presented for informational purposes only and is not indicative of any change in DOE's analytical methodology. The NES of estimated primary energy savings results based on a 9-year analytical period are presented in Table V–31 through Table V–33. The impacts are counted over the lifetime of products purchased in 2017–2025.

TABLE V–31—WICF REFRIGERATION SYSTEMS: CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS IN QUADS FOR UNITS SOLD IN 2017–2025

Equipment class	Trial standard levels			
	1,3	2,4	5	6
DC.M.I*	0.007	0.012	0.012	0.012
DC.M.O*	0.547	0.733	0.756	0.756
DC.L.I*	0.003	0.005	0.005	0.005
DC.L.O*	0.230	0.348	0.376	0.376
MC.M	0.113	0.113	0.113	0.113
MC.L	0.030	0.025	0.030	0.030

* For DC refrigeration systems, results include multiple capacity ranges.

TABLE V–32—COMPONENT EQUIPMENT CLASS: CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS IN QUADS FOR UNITS SOLD IN 2017–2025

[Primary energy savings]

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	0.063	0.000	0.079	0.054	0.066	0.134
SP.L	0.108	0.000	0.137	0.092	0.108	0.150
FP.L	0.012	0.000	0.017	0.010	0.013	0.017
DD.M	0.123	0.119	0.123	0.119	0.119	0.188
DD.L	0.006	0.006	0.009	0.006	0.006	0.029
PD.M	0.003	0.000	0.003	0.002	0.002	0.021
PD.L	0.033	0.000	0.041	0.031	0.037	0.041
FD.M	0.000	0.000	0.000	0.000	0.000	0.001
FD.L	0.002	0.000	0.003	0.002	0.003	0.003

TABLE V–33—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: CUMULATIVE NATIONAL PRIMARY AND FULL-FUEL CYCLE ENERGY SAVINGS IN QUADS FOR UNITS SOLD IN 2017–2025

Application	Trial standard levels					
	1	2	3	4	5	6
Medium Temperature	0.855	0.977	0.871	1.033	1.069	1.226
Low Temperature	0.425	0.384	0.470	0.519	0.579	0.651
Primary Energy Savings Total	1.280	1.361	1.341	1.552	1.648	1.877
Upstream Energy Savings	0.021	0.022	0.022	0.025	0.027	0.031
FFC Total	1.301	1.383	1.363	1.577	1.675	1.908

b. Net Present Value of Consumer Costs and Benefits

DOE estimated the cumulative NPV to the nation of the total costs and savings for consumers that would result from particular composite standard levels for the refrigeration systems and components. In accordance with OMB guidelines on regulatory analysis (OMB Circular A–4, section E, September 17, 2003), DOE calculated NPV using both a 7-percent and a 3-percent real discount rate. The 7-percent rate is an estimate of the average before-tax rate of return on private capital in the U.S. economy, and reflects the returns on real estate and small business capital, including corporate capital. DOE used this discount rate to approximate the opportunity cost of capital in the private sector, since recent OMB analysis has found the average rate of return on capital to be near this rate. In addition, DOE used the 3-percent rate to capture the potential effects of standards on private consumption. This rate represents the rate at which society discounts future consumption flows to their present value. It can be approximated by the real rate of return on long-term government debt (*i.e.,* yield on Treasury notes minus annual rate of change in the Consumer Price Index), which has averaged about 3 percent on a pre-tax basis for the last 30 years.

Table V–34 through Table V–39 show the consumer NPV results for each of the TSLs DOE considered for the combination of refrigeration systems and envelope components, using both a 7-percent and a 3-percent discount rate. In each case, the impacts cover the lifetime of products purchased in 2017–2046. For a particular TSL combination, improving component efficiency should result in reduced refrigeration load on the paired refrigeration system and consequently, the refrigeration system can be downsized, resulting in additional consumer benefits. In estimating the ''first cost benefits,'' DOE made several assumptions and has shown the results only in the summary table. For a discussion of these assumptions, see chapter 10 of the TSD.

TABLE V–34—WICF REFRIGERATION SYSTEMS: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Equipment classes	Trial standard levels			
	1,3	2,4	5	6
DC.M.I *	38	52	52	52
DC.M.O *	3,417	3,943	3,937	3,937
DC.L.I *	12	19	19	19
DC.L.O *	1,488	1,995	1,913	1,913
MC.M	835	843	835	835
MC.L	161	189	161	161

* For DC refrigeration systems, results include both capacity ranges.

TABLE V–35—ENVELOPE COMPONENT EQUIPMENT CLASSES: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	289	0	121	207	11	−17,715
SP.L	662	0	269	520	21	−4,298
FP.L	63	0	52	48	22	−578
DD.M	571	545	571	545	543	−11,200
DD.L	54	51	0	51	50	−395
PD.M	4	0	4	1	1	−1,764
PD.L	106	0	38	88	6	−513
FD.M	0	0	0	0	0	−106
FD.L	10	0	5	9	2	−59

TABLE V–36—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Application	Trial standard levels					
	1	2	3	4	5	6
Medium temperature						
Combined NPV	5,155	5,384	4,987	5,592	5,380	−25,961
First cost benefits	6	3	18	34	45	153
Sub-Total	5,161	5,386	5,004	5,627	5,425	−25,809
Low temperature						
Combined NPV	2,555	2,255	2,025	2,919	2,193	−3,751
First cost benefits	49	0	89	96	246	344
Sub-Total	2,604	2,255	2,114	3,015	2,438	−3,408
Total—All	7,765	7,641	7,118	8,642	7,864	−29,217

TABLE V–37—WICF REFRIGERATION SYSTEMS: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Equipment class	Trial standard levels			
	1,3	2,4	5	6
DC.M.I *	107	159	159	159
DC.M.O *	9,161	11,047	11,147	11,147
DC.L.I *	36	61	60	60
DC.L.O *	3,951	5,483	5,455	5,455
MC.M	2,143	2,157	2,143	2,143
MC.L	450	483	450	450

* For DC refrigeration systems, results include both capacity ranges.

TABLE V–38—ENVELOPE COMPONENT EQUIPMENT CLASSES: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	990	0	779	770	484	−32,834
SP.L	2,151	0	1,468	1,694	797	−7,144
FP.L	219	0	216	167	134	−985
DD.M	1,667	1,602	1,667	1,602	1,597	−20,987
DD.L	135	128	41	128	126	−640
PD.M	21	0	21	13	12	−3,329
PD.L	364	0	270	319	189	−803
FD.M	1	0	1	1	1	−200
FD.L	36	0	31	32	23	−92

TABLE V–39—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2046

Application	Trial standard levels					
	1	2	3	4	5	6
Medium temperature						
Combined NPV	14,091	14,965	13,880	15,748	15,543	−43,901
First cost benefits	12	5	34	66	87	294
Sub-Total	14,102	14,970	13,914	15,814	15,630	−43,607
Low temperature						
Combined NPV	7,191	6,155	6,464	8,297	7,234	−3,700
First cost benefits	94	0	172	185	473	663
Sub-Total	7,285	6,155	6,636	8,482	7,707	−3,037
Total—All	21,387	21,125	20,550	24,296	23,337	−46,644

The NPV results based on the aforementioned 9-year analytical period are presented in Table V–40 through Table V–45. The impacts are counted over the lifetime of products purchased in 2017–2025. As mentioned previously, this information is presented for informational purposes only and is not indicative of any change in DOE's analytical methodology or decision criteria.

TABLE V–40—WICF REFRIGERATION SYSTEMS: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Equipment classes	Trial standard levels			
	1,3	2,4	5	6
DC.M.I *	21	30	30	30
DC.M.O *	1,864	2,175	2,178	2,178
DC.L.I *	7	11	11	11
DC.L.O *	810	1,095	1,060	1,060
MC.M	451	455	451	451
MC.L	89	102	89	89

* For DC refrigeration systems, results include both capacity ranges.

TABLE V–41—ENVELOPE COMPONENT EQUIPMENT CLASSES: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	128	0	35	89	−17	−9,275
SP.L	306	0	92	238	−27	−2,293
FP.L	29	0	21	21	6	−307
DD.M	326	312	326	312	311	−5,473
DD.L	29	28	3	28	27	−186

TABLE V–41—ENVELOPE COMPONENT EQUIPMENT CLASSES: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025—Continued

Equipment class	Trial standard levels					
	1	2	3	4	5	6
PD.M	3	0	3	1	1	−870
PD.L	62	0	30	53	13	−244
FD.M	0	0	0	0	0	−53
FD.L	5	0	2	4	0	−30

TABLE V–42—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: NET PRESENT VALUE IN MILLIONS (2012$) AT A 7-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Application	Trial standard levels					
	1	2	3	4	5	6
Medium temperature						
Combined NPV	2,883	3,061	2,791	3,156	3,153	−12,843
First cost benefits	3	1	9	17	23	77
Sub-Total	2,886	3,062	2,800	3,174	3,176	−12,766
Low temperature						
Combined NPV	1,322	1,125	1,045	1,479	1,416	−1,829
First cost benefits	23	0	42	33	124	174
Sub-Total	1,345	1,125	1,087	1,512	1,540	−1,655
Total—All	4,230	4,188	3,887	4,686	4,716	−14,421

TABLE V–43—WICF REFRIGERATION SYSTEMS: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Equipment class	Trial standard levels			
	1,3	2,4	5	6
DC.M.I *	42	63	63	63
DC.M.O *	3,564	4,330	4,377	4,377
DC.L.I *	14	24	24	24
DC.L.O *	1,535	2,143	2,145	2,145
MC.M	828	832	828	828
MC.L	177	187	177	177

* For DC refrigeration systems, results include both capacity ranges.

TABLE V–44—ENVELOPE COMPONENT EQUIPMENT CLASSES: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Equipment class	Trial standard levels					
	1	2	3	4	5	6
SP.M	296	0	197	224	101	−12,538
SP.L	651	0	385	503	167	−2,879
FP.L	64	0	61	48	34	−392
DD.M	675	650	675	650	648	−7,204
DD.L	52	50	21	50	49	−203
PD.M	9	0	9	6	5	−1,161
PD.L	147	0	118	129	87	−261
FD.M	0	0	0	0	0	−71
FD.L	11	0	8	10	6	−35

TABLE V–45—REFRIGERATION SYSTEMS AND COMPONENTS COMBINED: NET PRESENT VALUE IN MILLIONS (2012$) AT A 3-PERCENT DISCOUNT RATE FOR UNITS SOLD IN 2017–2025

Application	Trial standard levels					
	1	2	3	4	5	6
Medium temperature						
Combined NPV	5,414	5,875	5,315	6,106	6,022	−15,707
First cost benefits	4	2	12	24	32	107
Sub-Total	5,418	5,877	5,328	6,130	6,054	−15,600
Low temperature						
Combined NPV	2,624	2,403	2,319	3,092	2,688	−1,425
First cost benefits	34	0	62	67	172	240
Sub-Total	2,658	2,403	2,382	3,159	2,859	−1,185
Total—All	8,076	8,281	7,709	9,289	8,913	−16,785

c. Employment Impacts

Besides the direct impacts on manufacturing employment discussed in section V.B.2.b, DOE develops general estimates of the indirect employment impacts of proposed standards on the economy. As discussed above, DOE expects energy conservation standards for walk-ins to reduce energy bills for commercial consumers, and the resulting net savings to be redirected to other forms of economic activity. DOE also realizes that these shifts in spending and economic activity by WICF owners could affect the demand for labor. Thus, indirect employment impacts may result from expenditures shifting between goods (the substitution effect) and changes in income and overall expenditure levels (the income effect) that occur due to the imposition of standards. These impacts may affect a variety of businesses not directly involved in the decision to make, operate, or pay the utility bills for walk-ins. To estimate these indirect economic effects, DOE used an input/output model of the U.S. economy using U.S. Department of Commerce, Bureau of Economic Analysis (BEA) and Bureau of Labor Statistics (BLS) data (as described in section IV.J; see chapter 13 of the TSD for more details).

In this input/output model, the dollars saved on utility bills from more efficient walk-in equipment are centered in economic sectors that create more jobs than are lost in the electric utility industry when spending is shifted from electricity to other products and services. Thus, the proposed walk-in energy conservation standards are likely to slightly increase the net demand for labor in the economy. However, the net increase in jobs might be offset by other, unanticipated effects on employment. Neither the BLS data nor the input/output model used by DOE indicates the quality of jobs lost or gained. As shown in Table V–46, DOE estimates that net indirect employment impacts from a proposed WICF standard are small relative to the national economy.

TABLE V–46—NET CHANGE IN JOBS FROM INDIRECT EMPLOYMENT EFFECTS UNDER WICF TSLS

Year	Trial standard level	Net national change in jobs (thousands)		
		Envelope components	Refrigeration systems	Total
2017	1	0.2	0.5	0.7
	2	0.1	0.7	0.8
	3	0.2	0.5	0.7
	4	0.2	0.7	0.9
	5	0.2	0.8	1.0
	6	0.3	0.8	1.1
2021	1	0.8	2.5	3.4
	2	0.3	3.4	3.7
	3	1.0	2.5	3.5
	4	0.8	3.4	4.2
	5	0.9	3.6	4.4
	6	1.4	3.6	5.0

4. Impact on Utility or Performance of Equipment

In performing the engineering analysis, DOE generally considers design options that would not lessen the utility or performance of the individual classes of equipment. See 42 U.S.C. 6295(o)(2)(B)(i)(IV). As presented in the screening analysis (chapter 4 of the TSD), DOE eliminates design options that reduce the utility of the equipment from consideration. For this notice, DOE tentatively concludes that none of the efficiency levels proposed for walk-in cooler and freezer equipment would be likely to reduce the utility or performance of the equipment.

5. Impact of Any Lessening of Competition

DOE has also considered any lessening of competition that is likely to result from amended standards. The Attorney General determines the impact, if any, of any lessening of competition likely to result from a proposed standard, and transmits such determination to the Secretary, together with an analysis of the nature and extent of such impact. (42 U.S.C. 6295(o)(2)(B)(i)(V) and (ii))

To assist the Attorney General in making such determination, DOE will provide DOJ with copies of this NOPR and the TSD for review. DOE will consider DOJ's comments on the proposed rule in preparing the final rule, and DOE will publish and respond to DOJ's comments in that document.

DOE also notes that during MIA interviews, domestic manufacturers indicated that foreign manufacturers do not generally enter the walk-in market and have not done so for the past several years; however, some walk-in equipment may be manufactured in Mexico or Canada. Manufacturers also stated that consolidation has occurred among walk-in manufacturers in recent years, due largely to the competitive nature of the industry and the recently enacted standards established by Congress. DOE believes that these trends will continue in this market regardless of the proposed standard levels chosen, but could accelerate if higher standard levels are set.

DOE does not believe that the proposed standards would result in domestic firms moving their production facilities outside the United States. The vast majority of walk-ins sold in the United States are manufactured in the United States, in large part because walk-in equipment is generally bulky, making it difficult and expensive to ship internationally. Manufacturers generally indicated during interviews that they would modify their existing facilities to comply with the amended energy conservation standards that DOE develops.

6. Need of the Nation To Conserve Energy

An improvement in the energy efficiency of the products subject to today's rule is likely to improve the security of the nation's energy system by reducing overall demand for energy. Reduced electricity demand may also improve the reliability of the electricity system. Reductions in national electric generating capacity estimated for each considered TSL are reported in chapter 14 of the TSD.

Energy savings from amended standards for WICF equipment classes covered in today's NOPR could also produce environmental benefits in the form of reduced emissions of air pollutants and greenhouse gases associated with electricity production. Table V–47 provides DOE's estimate of cumulative emissions reductions projected to result from the TSLs considered in this rulemaking. The table includes both power sector emissions and upstream emissions. The upstream emissions were calculated using the multipliers discussed in section IV.G. DOE reports annual CO_2, NO_X, and Hg emissions reductions for each TSL in chapter 15 of the NOPR TSD. As discussed in section IV.J, DOE did not include NO_X emissions reduction from power plants in States subject to CAIR, because an energy conservation standard would not affect the overall level of NO_X emissions in those States due to the emissions caps mandated by CSAPR.

TABLE V–47—CUMULATIVE EMISSIONS REDUCTION FOR WICF TSLS FOR EQUIPMENT PURCHASED IN 2017–2046

	TSL					
	1	2	3	4	5	6
Power Sector and Site Emissions*						
CO_2 (*million metric tons*)	234.32	240.95	246.75	281.35	299.79	345.05
NO_X (*thousand tons*)	178.96	183.22	188.62	214.60	228.76	263.66
Hg (*tons*)	0.52	0.53	0.54	0.62	0.66	0.76
N_2O (*thousand tons*)	5.22	5.33	5.51	6.26	6.67	7.70
CH_4 (*thousand tons*)	29.18	29.98	30.74	35.03	37.33	42.98
SO_2 (*thousand tons*)	313.03	322.01	329.61	375.89	400.52	460.93
Upstream Emissions						
CO_2 (*million metric tons*)	13.87	14.27	14.61	16.66	17.75	20.43
NO_X (*thousand tons*)	190.90	196.36	201.02	229.24	244.26	281.10
Hg (*tons*)	0.01	0.01	0.01	0.01	0.01	0.01
N_2O (*thousand tons*)	0.14	0.14	0.15	0.17	0.18	0.21
CH_4 (*thousand tons*)	1,159.66	1,192.72	1,221.16	1,392.52	1,483.77	1,707.59
SO_2 (*thousand tons*)	2.97	3.06	3.13	3.57	3.80	4.38
Total Emissions						
CO_2 (*million metric tons*)	248.19	255.22	261.36	298.01	317.54	365.48
NO_X (*thousand tons*)	369.85	379.58	389.64	443.84	473.02	544.76
Hg (*tons*)	0.52	0.54	0.55	0.63	0.67	0.77
N_2O (*thousand tons*)	5.36	5.48	5.65	6.43	6.85	7.90
CH_4 (*thousand tons*)	1,188.84	1,222.70	1,251.90	1,427.56	1,521.10	1,750.57
SO_2 (*thousand tons*)	316.00	325.06	332.74	379.46	404.32	465.31

As part of the analysis for this NOPR, DOE estimated monetary benefits likely to result from the reduced emissions of CO_2 and NO_X that DOE estimated for each of the TSLs considered. As discussed in section IV.M.1, DOE used values for the SCC developed by an interagency process. The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets are based on the average SCC from three integrated assessment models, at discount rates of 2.5 percent, 3 percent, and 5 percent. The fourth set, which represents the 95th-percentile SCC

estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The four values for CO_2 emissions reductions in 2015, expressed in 2012$, are $12.9/ton, $40.8/ton, $62.2/ton, and $117.0/ton. The values for later years are higher due to increasing damages as the magnitude of climate change increases.

Table V–48 presents the global value of CO_2 emissions reductions at each TSL. DOE calculated domestic values as a range from 7 percent to 23 percent of the global values, and these results are presented in chapter 16 of the NOPR TSD.

TABLE V–48—CUMULATIVE EMISSIONS REDUCTION FOR WICF TSLS

[2017 through 2073]

TSL	SCC case *			
	5% discount rate, average *	3% discount rate, average *	2.5% discount rate, average *	3% discount rate, 95th percentile *
Primary Energy Emissions				
	Million 2012$			
1	1,477.1	7,031.6	11,276.4	21,608.4
2	1,532.4	7,269.9	11,648.3	22,334.5
3	1,552.5	7,396.3	11,863.3	22,730.2
4	1,777.9	8,455.6	13,556.7	25,982.3
5	1,892.8	9,004.8	14,438.5	27,670.6
6	2,173.0	10,348.6	16,597.3	31,802.7
Upstream Emissions				
1	86.8	415.1	665.9	1,277.0
2	90.0	429.1	687.8	1,319.6
3	91.2	436.7	700.6	1,343.3
4	104.4	499.1	800.6	1,535.4
5	111.2	531.6	852.7	1,635.2
6	127.7	610.9	980.2	1,879.4
Total Emissions				
1	1,563.8	7,446.7	11,942.3	22,885.4
2	1,622.4	7,698.9	12,336.1	23,654.1
3	1,643.7	7,832.9	12,563.9	24,073.6
4	1,882.4	8,954.8	14,357.3	27,517.7
5	2,003.9	9,536.4	15,291.2	29,305.8
6	2,300.7	10,959.5	17,577.5	33,682.1

* For each of the four cases, the corresponding SCC value for emissions in 2015 is $12.9, $40.8, $62.2 and $117.0 per metric ton (2012$).

DOE is well aware that scientific and economic knowledge about the contribution of CO_2 and other GHG emissions to changes in the future global climate and the potential resulting damages to the world economy continues to evolve rapidly. Thus, any value placed in this NOPR on reducing CO_2 emissions is subject to change. DOE, together with other Federal agencies, will continue to review various methodologies for estimating the monetary value of reductions in CO_2 and other GHG emissions. This ongoing review will consider the comments on this subject that are part of the public record for this NOPR and other rulemakings, as well as other methodological assumptions and issues. However, consistent with DOE's legal obligations, and taking into account the uncertainty involved with this particular issue, DOE has included in this NOPR the most recent values and analyses resulting from the ongoing interagency review process.

DOE also estimated a range for the cumulative monetary value of the economic benefits associated with NO_X and Hg emissions reductions anticipated to result from amended ballast standards. Table V–49 presents the present value of cumulative NO_X emissions reductions for each TSL calculated using the average dollar-per-ton values at 7-percent and 3-percent discount rates.

TABLE V–49—CUMULATIVE PRESENT VALUE OF NO_X EMISSIONS REDUCTION FOR WICF TSLS

[2017 through 2073]

TSL	3% discount rate	7% discount rate
Power Sector Emissions		
	Million 2012$	
1	219.7	96.3

TABLE V–49—CUMULATIVE PRESENT VALUE OF NO_X EMISSIONS REDUCTION FOR WICF TSLS—Continued

[2017 through 2073]

TSL	3% discount rate	7% discount rate
2	227.7	101.0
3	231.0	100.9
4	264.4	116.2
5	281.5	123.6
6	323.3	141.4
Upstream Emissions		
1	240.1	105.4
2	249.4	110.5
3	252.3	110.5
4	289.1	127.2
5	307.7	135.3
6	353.1	154.8
Total Emissions		
1	459.8	201.6
2	477.1	211.4
3	483.3	211.4
4	553.5	243.5
5	589.2	258.9
6	676.5	296.3

Note: Present value of NO_X emissions calculated with at $2,639 per ton.

The NPV of the monetized benefits associated with emissions reductions can be viewed as a complement to the NPV of the consumer savings calculated for each TSL considered in this NOPR.

Table V–50 presents the NPV values that result from adding the estimates of the potential economic benefits resulting from reduced CO_2 and NO_X emissions in each of four valuation scenarios to the NPV of consumer savings calculated for each TSL considered in this rulemaking, at both a 7-percent and a 3-percent discount rate. The CO_2 values used in the columns of each table correspond to the four scenarios for the valuation of CO_2 emission reductions discussed above.

TABLE V–50—WICF TSLS: NET PRESENT VALUE OF CONSUMER SAVINGS COMBINED WITH NET PRESENT VALUE OF MONETIZED BENEFITS FROM CO_2 AND NO_X EMISSIONS REDUCTIONS

TSL	Consumer NPV at 3% discount rate added with:			
	SCC Value of $12.9/ metric ton CO_2* and low value for NO_X**	SCC Value of $40.8/ metric ton CO_2* and medium value for NO_X**	SCC Value of $62.2/ metric ton CO_2* and medium value for NO_X**	SCC Value of $117.0/ metric ton CO_2* and high value for NO_X**
	billion 2012$			
1	23.03	29.29	33.79	45.11
2	22.83	29.30	33.94	45.65
3	22.28	28.87	33.60	45.50
4	26.28	33.80	39.21	52.82
5	25.45	33.46	39.22	53.72
6	−44.22	−35.01	−28.39	−11.73
TSL	Consumer NPV at 7% discount rate added with:			
	SCC Value of $12.9/ metric ton CO_2* and low value for NO_X**	SCC Value of $40.8/ metric ton CO_2* and medium value for NO_X**	SCC Value of $62.2/ metric ton CO_2* and medium value for NO_X**	SCC Value of $117.0/ metric ton CO_2* and high value for NO_X**
	billion 2012$			
1	9.36	15.41	19.91	31.02
2	9.30	15.55	20.19	31.68
3	8.80	15.16	19.89	31.58
4	10.57	17.84	23.24	36.60
5	9.91	17.66	23.41	37.64
6	−26.86	−17.96	−11.34	5.01

Note: Low Value corresponds to $468 per ton of NO_X emissions. Medium Value corresponds to $2,639 per ton of NO_X emissions. High Value corresponds to $4,809 per ton of NO_X emissions.

* These label values represent the global SCC in 2015, in 2012$. The present values have been calculated with scenario-consistent discount rates.

Although adding the value of consumer savings to the values of emission reductions provides a valuable perspective, the following should be considered: (1) The national consumer savings are domestic U.S. consumer monetary savings found in market transactions, while the values of emissions reductions are based on estimates of marginal social costs, which, in the case of CO_2, are based on a global value; and (2) the assessments of consumer savings and emission-related benefits are performed with different computer models, leading to different timeframes for analysis. For walk-ins, the present value of national consumer savings is measured for the period in which units shipped (2017–2046) continue to operate. However, the time frames of the benefits associated with the emission reductions differ. For example, the value of CO_2 emissions reductions reflects the present value of all future climate-related impacts due to emitting a ton of CO_2 in that year, out to 2300.

Chapter 15 of the NOPR TSD presents calculations of the combined NPV, including benefits from emissions reductions for each TSL.

7. Other Factors

Consistent with EPCA, DOE examined whether other factors might be relevant in determining whether the proposed standards are economically justified. See generally 42 U.S.C. 6295(o)(2)(B)(i)(VII). DOE identified none other than those discussed above.

DOE prepared a regulatory impact analysis (RIA) for this rulemaking, which is contained in the TSD. The RIA is subject to review by the Office of Information and Regulatory Affairs (OIRA) in the OMB. The RIA consists of (1) a statement of the problem addressed by this regulation and the mandate for Government action, (2) a description and analysis of policy alternatives to this regulation, (3) a quantitative review of the potential impacts of the alternatives, and (4) the national economic impacts of the proposed standard.

The RIA assesses the effects of feasible policy alternatives to walk-in equipment standards and provides a comparison of the impacts of the alternatives. DOE evaluated the alternatives in terms of their ability to achieve significant energy savings at reasonable cost, and compared them to the effectiveness of the proposed rule. DOE analyzed these alternatives with reference to the particular market dynamics of the WICF industry.

DOE identified the following major policy alternatives for achieving increased WICF efficiency:

- No new regulatory action
- Commercial consumer tax credits
- Commercial consumer rebates
- Voluntary energy efficiency targets
- Bulk government purchases
- Early replacement

DOE qualitatively evaluated each alternative's ability to achieve significant energy savings at reasonable cost and compared it to the effectiveness of the proposed rule. DOE assumed that each alternative policy would induce commercial consumers to voluntarily purchase at least some higher efficient at any of the trial standard levels (TSLs). In contrast to a standard at one of the TSLs, the adoption rate of the alternative non-regulatory policy cases may not be 100 percent, which would result in lower energy savings than a standard. The following paragraphs discuss each policy alternative. (See chapter 17 of the TSD, Regulatory Impact Analysis, for further details.)

No new regulatory action. The case in which no regulatory action is taken for WICF equipment constitutes the base case (or no action) scenario. By definition, no new regulatory action yields zero energy savings and a net present value of zero dollars.

Commercial consumer tax credits. Consumer tax credits are considered a viable non-regulatory market transformation program. From a consumer perspective, the most important difference between rebate and tax credit programs is that a rebate can be obtained quickly, whereas receipt of tax credits is delayed until income taxes are filed or a tax refund is provided by the Internal Revenue Service (IRS). From a societal perspective, tax credits (like rebates) do not change the installed cost of the equipment, but rather transfer a portion of the cost from the consumer to taxpayers as a whole. DOE, therefore, assumed that equipment costs in the consumer tax credits scenario were identical to the NIA base case.

Commercial consumer rebates. Consumer rebates cover a portion of the difference in incremental product price between products meeting baseline efficiency levels and those meeting higher efficiency levels, resulting in a higher percentage of consumers purchasing more efficient models and decreased aggregated energy use compared to the base case. Although a rebate program would reduce the total installed cost to the consumer, it is financed by tax revenues. Therefore, from a societal perspective, the installed cost at any efficiency level does not change with the rebate program; rather, part of the cost is transferred from the consumer to taxpayers as a whole. Consequently, DOE assumed that equipment costs in the rebates scenario were identical to the NIA base case.

Voluntary energy efficiency targets. While it is possible that voluntary programs for equipment would be effective, DOE lacks a quantitative basis to determine how effective such a program might be. As noted previously, broader economic and social considerations are in play than simple economic return to the equipment purchaser. DOE lacks the data necessary to quantitatively project the degree to which such voluntary programs for more expensive, higher efficiency equipment would modify the market.

Bulk Government purchases and early replacement incentive programs. DOE also considered, but did not analyze, the potential of bulk Government purchases and early replacement incentive programs as alternatives to the proposed standards. Bulk purchases would have very limited impact on improving the overall market efficiency of WICF equipment because they are a negligible part of the total. In the case of replacement incentives, several policy options exist to promote early replacement, including a direct national program of consumer incentives, incentives paid to utilities to promote an early replacement program, market promotions through equipment manufacturers, and replacement of government-owned equipment. In considering early replacements, DOE estimates that the energy savings realized through a one-time early replacement of existing stock equipment does not result in energy savings commensurate to the cost to administer the program. Consequently, DOE did not analyze this option in detail.

C. Proposed Standard

''When considering proposed standards, the new or amended energy conservation standard that DOE adopts for any type (or class) of walk-in coolers and freezers shall be designed to achieve the maximum improvement in energy efficiency that the Secretary of Energy determines is technologically feasible and economically justified. (42 U.S.C. 6313(f)(4)(A)) In determining

whether a standard is economically justified, the Secretary must determine whether the benefits of the standard exceed its burdens to the greatest extent practicable, considering the seven statutory factors discussed previously. (42 U.S.C. 6295(o)(2)(B)(i) and 6316(a)) The new or amended standard must also ''result in significant conservation of energy.'' (42 U.S.C. 6295(o)(3)(B) and 6316(a))

DOE considered the impacts of standards at each TSL, beginning with the maximum technologically feasible level, to determine whether that level met the evaluation criteria. If the max tech level was not justified, DOE then considered the next most efficient level and undertook the same evaluation until it reached the highest efficiency level that is both technologically feasible and economically justified and saves a significant amount of energy.

DOE discusses the benefits and/or burdens of each TSL in the remainder of this section. DOE bases its discussion of each TSL on quantitative analytical results such as national energy savings, net present value (discounted at 3 and 7 percent), emissions reductions, industry net present value, life-cycle cost, and consumers' installed price increases. Beyond the quantitative results, DOE also considers other burdens and benefits that affect economic justification, including how technological feasibility, manufacturer costs, and impacts on competition may affect the economic results presented.

DOE has included a table below that presents a summary of the results of DOE's quantitative analysis for each TSL. In addition to the quantitative results presented in the tables, DOE also considers other burdens and benefits that affect economic justification. Section V.B presents the estimated impacts of each TSL on commercial customers and manufacturers, and subgroups thereof, as well as the Nation.

TABLE V–51—SUMMARY OF RESULTS FOR WICF REFRIGERATION SYSTEMS AND ENVELOPE COMPONENTS, TSLS 1–6

Category	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5	TSL 6
National Full-Fuel Cycle Energy Savings (quads)						
Total-All	4.49	4.61	4.73	5.39	5.74	6.61
NPV of Consumer Benefits (2012$ billion)						
3% discount rate	21.4	21.1	20.6	24.3	23.3	−46.6
7% discount rate	7.8	7.6	7.1	8.6	7.9	−29.2
Industry Impacts						
Change in Industry NPV (2012$ million)	−60 to −1	−44 to 11	−108 to −23	−77 to 0	−134 to −19	−657 to 924
Change in Industry NPV (%)	−7 to 0	−5 to 1	−13 to −3	−9 to 0	−16 to −2	−77 to 109
Cumulative Emissions Reduction						
CO_2 (MMt)	248.2	255.2	261.4	298.0	317.5	365.5
NO_X (kt)	369.9	379.6	389.6	443.8	473.0	544.8
Hg (t)	0.5	0.5	0.6	0.6	0.7	0.8
SO_2 (kt)	316.0	325.1	332.7	379.5	404.3	465.3
N_2O (kt)	5.4	5.5	5.7	6.4	6.9	7.90
N_2O (kt CO_2 eq)@	1,600.0	1,634.5	1,687.2	1,917.5	2,044.5	2,357.9
CH_4 (kt)	1,188.84	1,222.70	1,251.90	1,427.56	1,521.10	1,750.57
CH_4 (kt CO_2 eq)@	29,720.25	30,566.82	31,296.66	35,688.0	38,026.65	43,763.14
Value of Cumulative Emissions Reduction *						
CO_2 (2012$ billion) *	1.56 to 22.89	1.62 to 23.65	1.64 to 24.07	1.88 to 27.52	2.00 to 29.31	2.41 to 33.68
NO_X—3% discount rate (2012$ million)	460	477	483	553	589	676
NO_X—7% discount rate (2012$ million)	202	211	211	243	259	296
LCC Savings (2012$) **						
Refrigeration Systems						
DC.M.I ***	280	611	280	611	611	611
DC.M.O ***	1,048	1,577	1,117	1,509	1,608	1,608
DC.L.I ***	505	1,117	505	1,117	1,080	1,080
DC.L.O ***	1,328	2,001	1,328	2,001	1,994	1,994
MC.M	1,715	1,724	1,715	1,724	1,715	1,715
MC.L	1,849	2,061	1,849	2,061	1,849	1,849
Envelope Components						
SP.M	16	0	−9	8	−22	−2,139
SP.L	122	0	−66	72	−140	−1,890
FP.L	66	0	−4	30	−65	−1,653
DD.M	239	228	239	228	222	−2,650
DD.L	217	200	−12	200	198	−1,717
PD.M	2	0	2	0	0	−884
PD.L	74	0	−16	52	−52	−665
FD.M	3	0	3	1	0	−1,157

TABLE V–51—SUMMARY OF RESULTS FOR WICF REFRIGERATION SYSTEMS AND ENVELOPE COMPONENTS, TSLS 1–6—Continued

Category	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5	TSL 6
FD.L	152	0	28	136	−32	−1,337
PBP (years) †						
Refrigeration Systems						
DC.M.I ***	3.2	4.4	3.2	4.4	4.4	4.4
DC.M.O ***	1.3	2.5	1.8	2.0	3.0	3.0
DC.L.I ***	2.8	2.7	2.8	2.7	3.1	3.1
DC.L.O ***	1.2	2.3	1.2	2.3	2.8	2.8
MC.M	0.6	0.5	0.6	0.5	0.6	0.6
MC.L	2.5	0.4	2.5	0.4	2.5	2.5
Envelope Components						
SP.M	3.8	N/A	6.8	4.5	9.0	146.4
SP.L	2.9	N/A	7.4	3.6	10.0	43.0
FP.L	3.5	N/A	6.0	4.5	8.0	48.7
DD.M	2.1	2.2	2.1	2.2	2.2	37.6
DD.L	N/A	N/A	6.0	N/A	N/A	18.5
PD.M	4.5	N/A	4.5	5.5	6.0	78.7
PD.L	4.3	N/A	6.2	4.7	7.0	18.3
FD.M	4.5	N/A	4.5	5.4	5.9	81.5
FD.L	3.8	N/A	5.8	2.9	6.5	21.7
Distribution of Consumer LCC Impacts						
All Medium and Low Temperature Refrigeration Systems						
Net Cost (%)	0	0	0	0	1	1
No Impact (%)	0	0	0	0	0	0
Net Benefit (%)	100	100	100	100	99	99
All Medium and Low Temperature Panels						
Net Cost (%)	11	0	76	28	93	100
No Impact (%)	0	100	0	0	0	0
Net Benefit (%)	89	0	24	72	7	0
All Medium and Low Temperature Display Doors						
Net Cost (%)	0	0	4	0	0	100
No Impact (%)	0	0	0	0	0	0
Net Benefit (%)	100	100	96	100	100	0
All Medium and Low Temperature Passage Doors						
Net Cost (%)	23	0	39	45	67	100
No Impact (%)	0	100	0	0	0	0
Net Benefit (%)	77	0	61	55	33	0
All Medium and Low Temperature Freight Doors						
Net Cost (%)	16	0	39	28	65	100
No Impact (%)	0	100	0	0	0	0
Net Benefit (%)	84	0	61	72	35	0

* Range of the economic value of CO_2 reductions is based on estimates of the global benefit of reduced CO_2 emissions.
** For LCCs, DOE did not consider variability of input parameters and used fixed input values. For the panels the unit of analysis is 100 ft^2, for other items it is a single unit of a refrigeration system or a door.
*** For DC refrigeration systems, results include both capacity ranges.
† For PBPs, DOE did not consider variability of input parameters and used fixed input values.
@ CO2eq is the quantity of CO2 that would have the same global warming potential (GWP).

DOE also notes that the economics literature provides a wide-ranging discussion of how consumers trade off upfront costs and energy savings in the absence of government intervention. Much of this literature attempts to explain why consumers appear to undervalue energy efficiency improvements. This undervaluation suggests that regulation that promotes energy efficiency can produce significant net private gains (as well as producing social gains by, for example, reducing pollution). There is evidence that consumers undervalue future energy savings as a result of (1) a lack of information, (2) a lack of sufficient salience of the long-term or aggregate

benefits, (3) a lack of sufficient savings to warrant accelerating or altering investments in energy saving equipment, (4) excessive focus on the short term, in the form of inconsistent weighing of future energy cost savings relative to available returns on other investments; (5) computational or other difficulties associated with the evaluation of relevant tradeoffs; and (6) a divergence in incentives (*e.g.,* renter versus building owner; builder versus home buyer). Other literature indicates that with less than perfect foresight and a high degree of uncertainty about the future, it may be rational for consumers to trade off these types of investments at a higher than expected rate between current consumption and uncertain future energy cost savings. Some studies suggest that this seeming undervaluation may be explained in certain circumstances by differences between tested and actual energy savings, or by uncertainty and irreversibility of energy investments. There may also be ''hidden'' welfare losses to customers if newer energy efficient equipment is an imperfect substitute for the less efficient equipment it replaces. In the abstract, it may be difficult to say how a welfare gain from correcting potential under-investment in energy conservation compares in magnitude to the potential welfare losses associated with no longer purchasing equipment or switching to an imperfect substitute, both of which still exist in this framework.

While DOE is not prepared at present to provide a fully quantifiable framework for estimating the benefits and costs of changes in consumer purchase decisions due to an energy conservation standard, DOE has posted a paper that discusses the issue of consumer welfare impacts of appliance energy efficiency standards, and potential enhancements to the methodology by which these impacts are defined and estimated in the regulatory process.[35] DOE is committed to developing a framework that can support empirical quantitative tools for improved assessment of the consumer welfare impacts of appliance standards. DOE welcomes comments on how to more fully assess the potential impact of energy conservation standards on consumer choice and how to quantify this impact in its regulatory analysis in future rulemakings. In particular, DOE requests comment on whether there are features or attributes of the more energy efficient walk-in coolers and walk-in freezers that manufacturers would produce to meet the standards in this proposed rule that might affect the welfare, positively or negatively, of consumers who purchase WICFs.

First, DOE considered TSL 6, the max tech level for WICF refrigeration systems and the covered envelope components combined together. TSL 6 would save an estimated 6.61 quads of energy through 2073, an amount DOE considers significant. For the Nation as a whole, DOE projects that TSL 6 would have a negative NPV for consumers, *i.e.,* result in increased costs of $29.2 billion, using a discount rate of 7 percent. The emissions reductions at TSL 6 are 365.5 MMt of CO_2, up to 545 kt of NO_X, 465 kt of SO_2, and up to 0.8 tons of Hg. These reductions are valued from $2.41 to $33.68 billion for CO_2. For NO_X the emissions reductions are valued at $296 million at a discount rate of 7 percent.

At TSL 6, DOE projects that consumers of WICF envelope components will experience an increase in LCC, ranging from $665 (low temperature passage door) to $2,650 (medium temperature display door) compared to the baseline. For refrigeration systems, however, DOE estimates that consumers would experience a decrease in LCC ranging from $611 to $1,994.

At TSL 6, manufacturers expect diminished profitability due to large increases in product costs, capital investments in equipment and tooling, and expenditures related to engineering and testing. The projected change in INPV ranges from a decrease of $657 million to an increase of $924 million based on DOE's manufacturer mark-up scenarios. The upper bound of $924 million is considered an optimistic scenario by manufacturers because it assumes manufacturers can fully pass on substantial increases in product costs. DOE recognizes the risk of large negative impacts on industry if manufacturers' expectations concerning reduced profit margins are realized. TSL 6 could reduce the walk-in refrigeration, panel, and door INPV by up to 77 percent, if the most negative impacts are realized.

After carefully considering the analysis and weighing the benefits and burdens of TSL 6, DOE finds that the benefits to the Nation of TSL 6 (i.e., energy savings and emissions reductions (including environmental and monetary benefits)) are small compared to the burdens (i.e., a decrease of $29.2 billion in NPV and a decrease of 77 percent in INPV). Because the burdens of TSL 6 far outweigh the benefits, TSL 6 is not economically justified. Therefore, DOE is not proposing to adopt TSL 6.

DOE then considered TSL 5, which combines refrigeration systems and envelope components at the highest efficiency level for each that would generate positive NPV to the Nation. TSL 5 would likely save an estimated 5.74 quads of energy through 2073, an amount DOE considers significant. For the Nation as a whole, DOE projects that TSL 5 would result in a net increase of $7.9 billion in NPV, using a discount rate of 7 percent. The estimated emissions reductions at TSL 5 are 317.5 MMt of CO_2, up to 473 kt of NO_X, 404 kt of SO_2, and up to 0.7 tons of Hg. These reductions are valued from $2.00 to $29.31 billion for CO_2. For NO_X the emissions reductions are valued at $259 million at a discount rate of 7 percent.

At TSL 5, DOE projects that the customers of WICF equipment will experience an increase in LCC for panels and low temperature passage and freight doors and either unchanged or decreased LCC for display doors and medium temperature passage and freight doors. For the refrigeration systems, DOE estimates that the consumers would experience a decrease in LCC ranging from $611 to $1,994.

At TSL 5, the projected change in INPV ranges from a decrease of $134 million to a decrease of $19 million. At TSL 5, DOE recognizes the risk of negative impacts if manufacturers' expectations concerning reduced profit margins are realized. If the negative end of the range of impacts is reached as DOE expects, TSL 5 could result in a net loss of 16 percent in INPV to the walk-in cooler and freezer industry. Additionally, DOE is concerned about TSL 5 causing disproportionate burdens on small business panel manufacturers, as explained in the Regulatory Flexibility analysis in section VI.B.4.

After carefully considering the analysis and weighing the benefits and burdens of TSL 5, DOE finds that the benefits to the Nation at TSL 5 (*i.e.,* energy savings and emissions reductions (including environmental and monetary benefits)) are too low compared to the burdens (*i.e.,* a decrease of 16 percent in INPV for the walk-in cooler and freezer industry with disproportionate impacts on the panel industry). Because the burdens of TSL 5 outweigh the benefits, TSL 5 is not economically justified. Therefore, DOE is not proposing TSL 5.

Next, DOE considered TSL 4, which combines the refrigeration systems at the maximum NPV level with the envelope components also at the maximum NPV level. TSL 4 would

[35] Alan Sanstad, Notes on the Economics of Household Energy Consumption and Technology Choice. Lawrence Berkeley National Laboratory. 2010. *http://www1.eere.energy.gov/buildings/appliance_standards/pdfs/consumer_ee_theory.pdf*

likely save an estimated 5.39 quads of energy through 2073, an amount DOE considers significant. For the Nation as a whole, DOE projects that TSL 4 would result in a net increase of $8.6 billion in NPV, using a discount rate of 7 percent. The estimated emissions reductions at TSL 4 are 298 MMt of CO_2, up to 444 kt of NO_X, 379.5 kt of SO_2, and up to 0.6 tons of Hg. These reductions are valued from $1.88 to $27.52 billion for CO_2. For NO_X the emissions savings are valued at $243 million at a discount rate of 7 percent.

At TSL 4, DOE projects that consumers of WICF equipment will experience a decrease of LCC for all equipment classes. At TSL 4, the projected change in INPV ranges from a decrease of $77 million to an increase of $0.01 million. At TSL 4, DOE recognizes the risk of negative impacts if manufacturers' expectations concerning reduced profit margins are realized. If the negative end of the range of impacts is reached as DOE expects, TSL 4 could result in a net loss of 9 percent of INPV to walk-in manufacturers.

After carefully considering the analysis and weighing the benefits and burdens of TSL 4, DOE tentatively believes that setting levels for both the refrigeration system and envelope components at TSL 4 represents the maximum improvement in energy efficiency that DOE's analysis projects to be technologically feasible and economically justified. TSL 4 is technologically feasible because the technologies required to achieve these levels are already in existence. TSL 4 is economically justified because the benefits to the Nation (i.e., increased energy savings of 5.39 quads, emissions reductions including environmental and monetary benefits of, for example, 298 MMt of carbon dioxide emissions reduction with an associated value of up to $27.52 billion at a discount rate of 3 percent, and an increase of $8.6 billion in NPV) outweigh the costs (*i.e.,* a decrease of 9 percent in INPV).

Therefore, DOE has tentatively decided to propose the adoption of energy conservation standards at TSL 4 for WICF refrigeration systems and the considered envelope components. DOE may re-examine this level depending on the nature of the information it receives during the comment period and make adjustments to its final levels in response to that information.

VI. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

Section 1(b)(1) of Executive Order 12866, ''Regulatory Planning and Review,'' 58 FR 51735 (Oct. 4, 1993), requires each agency to identify the problem that it intends to address, including, where applicable, the failures of private markets or public institutions that warrant new agency action, as well as to assess the significance of that problem. The problems that today's standards address are as follows:

(1) There is a lack of consumer information and/or information processing capability about energy efficiency opportunities in the walk-in cooler and freezer market.

(2) There is asymmetric information (one party to a transaction has more and better information than the other) and/or high transactions costs (costs of gathering information and effecting exchanges of goods and services).

(3) There are external benefits resulting from improved energy efficiency of walk-in coolers and freezers that are not captured by the users of such equipment. These benefits include externalities related to environmental protection that are not reflected in energy prices, such as reduced emissions of greenhouse gases.

In addition, DOE has determined that today's regulatory action is an ''economically significant regulatory action'' under section 3(f)(1) of Executive Order 12866. Accordingly, section 6(a)(3) of the Executive Order requires that DOE prepare a regulatory impact analysis (RIA) on today's rule and that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB) review this rule. DOE presented to OIRA for review the proposed rule and other documents prepared for this rulemaking, including the RIA, and has included these documents in the rulemaking record. The assessments prepared pursuant to Executive Order 12866 can be found in the technical support document for this rulemaking.

DOE has also reviewed this proposed regulation pursuant to Executive Order 13563, issued on January 18, 2011 (76 FR 3281, Jan. 21, 2011). EO 13563 is supplemental to and explicitly reaffirms the principles, structures, and definitions governing regulatory review established in Executive Order 12866. To the extent permitted by law, agencies are required by Executive Order 13563 to: (1) Propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

DOE emphasizes as well that Executive Order 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, DOE believes that today's NOPR is consistent with these principles, including the requirement that, to the extent permitted by law, benefits justify costs and that net benefits are maximized.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis (IRFA) for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (August. 16, 2002), DOE published procedures and policies on February 19, 2003 to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's Web site (*http://energy.gov/gc/office-general-counsel*).

For manufacturers of walk-in coolers and freezers, the Small Business Administration (SBA) has set a size threshold, which defines those entities classified as ''small businesses'' for the purposes of the statute. DOE used the SBA's small business size standards to determine whether any small entities would be subject to the requirements of the rule. 65 FR 30836, 30848 (May 15, 2000), as amended at 65 FR 53533, 53544 (Sept. 5, 2000) and codified at 13 CFR part 121.The size standards are listed by North American Industry Classification System (NAICS) code and industry description and are available at *http://www.sba.gov/idc/groups/public/documents/sba_homepage/serv_sstd_tablepdf.pdf*. Walk-in cooler and freezer manufacturing is classified under NAICS 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.'' The SBA sets a threshold of 750 employees or fewer for an entity to be considered as a small business for this category.

DOE determined that it could not certify that the proposed rule, if promulgated, would not have a significant effect on a substantial number of small entities that manufacture WICF panels and doors. Therefore, DOE has prepared an IRFA (sections VI.B.1 through VI.B.6 below) for this rulemaking. The IRFA describes potential impacts on small businesses associated with walk-in cooler and freezer energy conservation standards.

1. Reasons for the Proposed Rule

Title III of the Energy Policy and Conservation Act of 1975, as amended, (EPCA or the Act) sets forth a variety of provisions designed to improve energy efficiency. Part B of Title III (42 U.S.C. 6291–6309) provides for the Energy Conservation Program for Consumer Products Other Than Automobiles. The National Energy Conservation Policy Act (NECPA), Public Law 95–619, amended EPCA to add Part C of Title III, which established an energy conservation program for certain industrial equipment. (42 U.S.C. 6311–6317) (For purposes of codification in Title 42 of the U.S. Code, these parts were subsequently redesignated as Parts A and A–1, respectively, for editorial reasons.) Section 312 of the Energy Independence and Security Act of 2007 (EISA 2007) further amended EPCA by adding certain equipment to this energy conservation program, including walk-in coolers and walk-in freezers (collectively ''walk-in equipment'' or ''walk-ins''), which are the subject of this rulemaking. (42 U.S.C. 6311(1), (20), 6313(f) and 6314(a)(9)) The proposed rule would establish energy conservation standards for walk-in coolers and walk-in freezers.

2. Objectives of, and Legal Basis for, the Proposed Rule

EPCA provides that DOE must publish performance-based standards for walk-in coolers and walk-in freezers that achieve the maximum improvement in energy that is technologically feasible and economically justified. (42 U.S.C. 6313(f)(4)(A)) However, in general, DOE may not adopt any standard that would not result in the significant conservation of energy. (42 U.S.C. 6295(o)(3)) (Regarding provisions contained only in the consumer products section of the U.S. Code, DOE is proposing to apply those provisions to walk-in coolers and walk-in freezers in the same manner.) Moreover, DOE may not prescribe a standard: (1) For certain products, including walk-in coolers and freezers, if no test procedure has been established for the product; or (2) if DOE determines by rule that the proposed standard is not technologically feasible or economically justified. (42 U.S.C. 6295(o)(3)(A)–(B)) In deciding whether a proposed standard is economically justified, DOE must determine whether the benefits of the standard exceed its burdens after receiving comments on the proposed standard. (42 U.S.C. 6295(o)(2)(B)(i)) To determine whether economic justification exists, DOE reviews comments received and conducts analysis to determine whether DOE must make this determination, and by considering, to the greatest extent practicable, the seven factors set forth in 42 U.S.C.6295(o)(2)(B) (see section II of this preamble).

EPCA also states that the Secretary may not prescribe a standard if interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States of any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States. (42 U.S.C. 6295(o)(4)) Further information concerning the background of this rulemaking is provided in chapter 1 of the TSD.

3. Description and Estimated Number of Small Entities Regulated

DOE used available public information and information from confidential interviews to identify potential small manufacturers. DOE's research involved industry trade association membership directories (including AHRI and NAFEM), the NSF Section 7 certification database, individual company Web sites, and marketing research tools (e.g., Dun and Bradstreet reports) to create a list of companies that manufacture or sell walk-in cooler or freezer panels, doors, and refrigeration systems covered by this rulemaking. DOE also asked stakeholders and industry representatives if they were aware of any other small manufacturers during manufacturer interviews and at previous DOE public meetings. DOE reviewed the publicly available data and contacted select companies on its list, as necessary, to determine whether they met the SBA's definition of a small business manufacturer of WICF equipment. DOE screened out companies that did not offer products covered by this rulemaking, did not meet the definition of a ''small business,'' or are foreign owned and operated.

Based on this information, DOE identified 52 panel manufacturers and found 42 of the identified panel manufacturers to be small businesses. As part of the MIA interviews, the Department interviewed nine panel manufacturers, including three small business operations. During MIA interviews, multiple manufacturers claimed that there are ''hundreds of two-man garage-based operations'' that produce WICF panels in small quantities. They asserted that these small manufacturers do not typically comply with EISA 2007 standards and do not obtain UL or NSF certifications for their equipment. DOE was not able to identify these small businesses and did not consider them in its analysis. Based on the purported number of small panel manufacturers and the potential scope of the impact (as described in section VI.B.4 below), DOE could not certify that the proposed standards would not have a significant impact on a substantial number of small businesses with respect to the panel industry.

DOE identified 59 walk-in door manufacturers. Fifty-five of those produce solid doors and four produce display doors. Of the fifty-five solid door manufacturers, fifty-two produce panels as their primary business and are considered in the category of panel manufacturers above. The remaining three solid door manufacturers are all considered to be small businesses. Of the four display door manufacturers, two are considered small businesses. Therefore, of the seven manufacturers that exclusively produce WICF doors (three producing solid doors and four producing display doors), DOE determined that five are small

businesses. As part of the MIA interviews, the Department interviewed six door manufacturers, including four small business operations. Based on the large proportion of small door manufacturers in the door market and the potential scope of the impact (as described in section VI.B.4 below), DOE could not certify that the proposed standards would not have a significant impact on a large number of small businesses with respect to the door industry.

DOE identified nine refrigeration system manufacturers in the WICF industry. Based on publicly available information, two of the manufacturers are small businesses. One small business focuses on large warehouse refrigeration systems, which are outside the scope of this rulemaking. However, at its smallest capacity, this company's units can be sold to the walk-in market. The other small business specializes in building evaporators and unit coolers for a range of refrigeration applications, including the walk-in market. As part of the MIA interviews, the Department interviewed five refrigeration manufacturers, including the two small business operations. Both small businesses expressed concern that the rulemaking would negatively impact their businesses and one small business indicated it would exit the walk-in industry as a result of any standard that would directly impact walk-in refrigeration system energy efficiency. However, due to the small number of small businesses that manufacture WICF refrigeration systems and the fact that only one of two focuses on WICF refrigeration as a key market segment and constitutes a very small share of the overall walk-in market, DOE certifies that the proposed standards would not have a significant impact on a substantial number of small businesses with respect to the refrigeration equipment industry.

4. Description and Estimate of Compliance Requirements

Given the significant role of small businesses in the walk-in panel and walk-in door industries, DOE provides a detailed analysis of the impacts of the proposed standard on these industries below.

Panels

In the walk-in industry, panel manufacturers typically use the same production lines to manufacture all three equipment classes (SP.M, SP.L, and FP.L). The equipment class with the most stringent standard drives conversion costs. The design options considered include reducing heat loss through the panel frame (typically by using high density polyurethane framing materials or by moving to a frameless design), increasing the thickness of panels, and incorporating vacuum-insulated technology.

Small manufacturers tend to be at a disadvantage when adapting to a new standard requiring fixed cost investments. Small manufacturers may have greater difficulty obtaining credit or may obtain less favorable terms than larger competitors when capital expenditures are necessary to meet the standard. Additionally, product testing costs stemming from the energy conservation standard tend to be fixed and do not scale with sales volume. As a result, these product conversion costs would be the same in absolute terms for small and large panel manufacturers. The small businesses would have to recoup these over smaller sales volumes, leading to higher per unit costs and potentially putting them at a pricing disadvantage. The projected conversion cost impacts on panel manufacturers are shown in Table VI–1 and Table VI–2 below.

TABLE VI–1—IMPACTS OF CONVERSION COSTS ON A SMALL PANEL MANUFACTURER

	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual operating income
TSL 1	565	122	9	242
TSL 2	0	0	0	0
TSL 3	1695	230	26	669
TSL 4	565	122	9	242
TSL 5	1695	230	26	669
TSL 6	5461	995	87	2262

TABLE VI–2—IMPACTS OF CONVERSION COSTS ON A LARGE PANEL MANUFACTURER

	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual operating income
TSL 1	22	5	0	9
TSL 2	0	0	0	0
TSL 3	66	9	1	26
TSL 4	22	5	0	9
TSL 5	66	9	1	26
TSL 6	213	39	3	88

At the proposed standard (TSL 4), the engineering analysis suggests that manufacturers would shift to high density rails for all products to achieve the minimum U-factors. The capital conversion costs would be 565% of the typical annual capital expenditures for a small manufacturer while only 22% of the typical annual capital expenditures for a large manufacturer. The product conversion costs would be 122% of the typical small manufacturer's annual R&D budget and only 5% of the typical large manufacturer's annual R&D budget.

In addition to these conversion cost impacts, small manufacturers typically have a significant price disadvantage for raw materials, such as foaming agents. Any standard that requires small

manufacturers to use more insulation or add a different foam formulation for high density rails will accentuate the difference in material costs for large manufacturers versus small manufacturers.

Based on the large number of small panel manufacturers and the potential scope of the impact (as described in section VI.B.2 below), DOE could not certify that the proposed standards would not have a significant impact on a substantial number of small businesses with respect to the panel industry.

Doors

For the walk-in door industry, DOE identified seven small manufacturers that produce doors as their primary product, as described in section VI.B.4. Three companies produce solid doors and four companies produce display doors.

In the solid door market, all three manufacturers of customized passage doors and freight doors are small. The potential impacts on these three manufacturers are illustrated in Table VI–3.

TABLE VI–3—IMPACTS OF CONVERSION COSTS ON A SMALL SOLID DOOR MANUFACTURER

	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual operating income
TSL 1	52	47	2	25
TSL 2	0	0	0	0
TSL 3	626	47	5	63
TSL 4	157	47	2	25
TSL 5	626	47	5	63
TSL 6	4086	142	27	369

At the proposed standard (TSL 4), the engineering analysis suggests that manufacturers would shift to high density frames to achieve the minimum energy consumption for all solid doors. Additionally, for low-temperature passage doors, manufacturers would need to incorporate enhanced windows to reduce heat transmission; manufacturers of low-temperature freight doors would need to add controls to minimize anti-sweat heater energy usage. The capital conversion costs would be 157% of the typical annual capital expenditures for a small manufacturer and the product conversion costs would be 47% of the typical manufacturer's annual R&D budget.

In the display door market, two of the four manufacturers are small. If conversion costs for display door manufacturers were large, the small manufacturers could be at a disadvantage due to the fixed investments necessary for capital conversion and product conversion costs. However, as illustrated in Table VI–4, conversion costs for display door manufacturers are negligible for most TSLs. This is because the considered design options primarily consist of component swaps and component additions. To make these design changes, no costly equipment or tooling is necessary. As a result, the conversion costs do not cause small businesses to be at a significant disadvantage relative to larger businesses when adapting to the proposed standard.

TABLE VI–4—IMPACTS OF CONVERSION COSTS ON A SMALL DISPLAY DOOR MANUFACTURER

	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual operating income
TSL 1	0	2	0	0
TSL 2	0	2	0	0
TSL 3	0	2	0	0
TSL 4	0	2	0	0
TSL 5	0	2	0	0
TSL 6	501	19	3	20

TABLE VI–5—IMPACTS OF CONVERSION COSTS ON A LARGE DISPLAY DOOR MANUFACTURER

	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual operating income
TSL 1	0	0	0	0
TSL 2	0	0	0	0
TSL 3	0	0	0	0
TSL 4	0	0	0	0
TSL 5	0	0	0	0
TSL 6	88	3	0	4

At the proposed standard (TSL 4), the engineering analysis suggests that manufacturers would need to purchase more efficient components, such as LED lights, and incorporate anti-sweat heater controllers. There are no anticipated

capital conversion costs, and product conversion costs appear to be manageable for both small and large businesses door manufacturers.

Based on the number of small door manufacturers and the potential scope of the impact on solid door manufacturers, DOE could not certify that the proposed standards would not have a significant impact on a significant number of small businesses with respect to the walk-in door industry.

5. Duplication, Overlap, and Conflict With Other Rules and Regulations

DOE is not aware of any rules or regulations that duplicate, overlap, or conflict with the rule being considered today.

6. Significant Alternatives to the Proposed Rule

The primary alternatives to the proposed rule considered by DOE are the other TSLs besides the one being considered today, proposed TSL 4. DOE explicitly considered the role of small businesses in its selection of TSL 4 rather than TSL 5. Though TSL 5 results in greater energy savings for the country, the standard would place excessive burdens on manufacturers, including small manufacturers, of walk-in refrigeration, panels, and doors. In particular, DOE considered the increase in conversion costs and potential negative impacts on small businesses that occurred between TSL 4 and TSL 5 for the solid door and panel industries, which have a significant number of small businesses. As another alternative to the proposed standard, DOE also considered lower TSLs; in particular, TSL 1, which does not set standards for panels and non-display doors. Chapter 12 of the TSD contains additional information about the impact of this rulemaking on manufacturers.

In addition to the other TSLs considered, alternatives to the proposed rule include the following policy alternatives: (1) No new regulatory action, (2) commercial consumer rebates, and (3) commercial consumer tax credits. Chapter 17 of the TSD associated with this proposed rule includes a report referred to in Section VI.A in the preamble as the regulatory impact analysis (RIA). The energy savings of these regulatory alternatives are one to two orders of magnitude smaller than those expected from the standard levels under consideration. The range of economic impacts of these regulatory alternatives is an order of magnitude smaller than the range of impacts expected from the standard levels under consideration.

C. Review Under the Paperwork Reduction Act

Manufacturers of walk-in coolers and freezers must certify to DOE that their products comply with any applicable energy conservation standards. In certifying compliance, manufacturers must test their products according to the DOE test procedures for walk-in coolers and freezers, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including walk-in coolers and freezers. 76 FR 12422 (March 7, 2011). The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB control number 1910–1400. Public reporting burden for the certification is estimated to average 20 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

DOE has prepared a draft environmental assessment (EA) of the impacts of the proposed rule pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), the regulations of the Council on Environmental Quality (40 CFR parts 1500–1508), and DOE's regulations for compliance with the National Environmental Policy Act of 1969 (10 CFR part 1021). This assessment includes an examination of the potential effects of emission reductions likely to result from the rule in the context of global climate change, as well as other types of environmental impacts. The draft EA has been incorporated into the NOPR TSD as chapter 15. Before issuing a final rule for walk-in coolers and freezers, DOE will consider public comments and, as appropriate, determine whether to issue a finding of no significant impact (FONSI) as part of a final EA or to prepare an environmental impact statement (EIS) for this rulemaking.

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism'' 64 FR 43255 (Aug. 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of today's proposed rule. See 42 U.S.C. 6316(h)(1)(A)(2), 42 U.S.C. 6316(h)(2)(B), and 42 U.S.C. 6316(h)(3). No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' imposes on Federal agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section

3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this proposed rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at *http://energy.gov/gc/office-general-counsel*.

Although today's proposed rule does not contain a Federal intergovernmental mandate, it may require expenditures of $100 million or more on the private sector. Specifically, the proposed rule will likely result in a final rule that could require expenditures of $100 million or more. Such expenditures may include: (1) Investment in research and development and in capital expenditures by walk-in cooler and freezer manufacturers in the years between the final rule and the compliance date for the new standards, and (2) incremental additional expenditures by customers to purchase higher-efficiency walk-in coolers and freezers, starting at the compliance date for the applicable standard.

Section 202 of UMRA authorizes a Federal agency to respond to the content requirements of UMRA in any other statement or analysis that accompanies the proposed rule. 2 U.S.C. 1532(c). The content requirements of section 202(b) of UMRA relevant to a private sector mandate substantially overlap the economic analysis requirements that apply under section 325(o) of EPCA and Executive Order 12866. The **SUPPLEMENTARY INFORMATION** section of the NOPR and the ''Regulatory Impact Analysis'' section of the TSD for this proposed rule respond to those requirements.

Under section 205 of UMRA, the Department is obligated to identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a written statement under section 202 is required. 2 U.S.C. 1535(a). DOE is required to select from those alternatives the most cost-effective and least burdensome alternative that achieves the objectives of the proposed rule unless DOE publishes an explanation for doing otherwise, or the selection of such an alternative is inconsistent with law. As required by 42 U.S.C. 6313(f)(4)(A), today's proposed rule would establish energy conservation standards for walk-in coolers and walk-in freezers that are designed to achieve the maximum improvement in energy efficiency that DOE has determined to be both technologically feasible and economically justified. A full discussion of the alternatives considered by DOE is presented in the ''Regulatory Impact Analysis'' section of the TSD for today's proposed rule.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights'' 53 FR 8859 (Mar. 18, 1988), that this regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516, note) provides for Federal agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed today's NOPR under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' 66 FR 28355 (May 22, 2001) requires Federal agencies to prepare and submit to OIRA at OMB a Statement of Energy Effects for any proposed significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that: (1) Is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

DOE has tentatively concluded that today's regulatory action, which sets forth energy conservation standards for walk-in coolers and freezers, is not a significant energy action because the proposed standards are not likely to have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as such by the Administrator at OIRA. Accordingly, DOE has not prepared a Statement of Energy Effects on the proposed rule.

L. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy (OSTP), issued its Final Information Quality Bulletin for Peer Review (the Bulletin). 70 FR

2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are ''influential scientific information,'' which the Bulletin defines as scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions. 70 FR 2667.

In response to OMB's Bulletin, DOE conducted formal in-progress peer reviews of the energy conservation standards development process and analyses and has prepared a Peer Review Report pertaining to the energy conservation standards rulemaking analyses. Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs or projects. The ''Energy Conservation Standards Rulemaking Peer Review Report'' dated February 2007 has been disseminated and is available at the following Web site: *www1.eere.energy.gov/buildings/appliance_standards/peer_review.html*.

VII. Public Participation

A. Attendance at the Public Meeting

The time, date, and location of the public meeting are listed in the **DATES** and **ADDRESSES** sections at the beginning of this notice. If you plan to attend the public meeting, please notify Ms. Brenda Edwards at (202) 586–2945 or *Brenda.Edwards@ee.doe.gov*. Please note that foreign nationals visiting DOE Headquarters are subject to advance security screening procedures. Any foreign national wishing to participate in the meeting should advise DOE as soon as possible by contacting Ms. Edwards to initiate the necessary procedures. Please also note that those wishing to bring laptops into the Forrestal Building will be required to obtain a property pass. Visitors should avoid bringing laptops, or allow an extra 45 minutes. Persons can attend the public meeting via webinar.

Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's Web site at: *http://www1.eere.energy.gov/buildings/appliance_standards/rulemaking.aspx/ruleid/30*. Participants are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has plans to present a prepared general statement may request that copies of his or her statement be made available at the public meeting. Such persons may submit requests, along with an advance electronic copy of their statement in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format, to the appropriate address shown in the **ADDRESSES** section at the beginning of this notice. The request and advance copy of statements must be received at least one week before the public meeting and may be emailed, hand-delivered, or sent by mail. DOE prefers to receive requests and advance copies via email. Please include a telephone number to enable DOE staff to make follow-up contact, if needed.

C. Conduct of the Public Meeting

DOE will designate a DOE official to preside at the public meeting and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the public meeting. After the public meeting, interested parties may submit further comments on the proceedings as well as on any aspect of the rulemaking until the end of the comment period.

The public meeting will be conducted in an informal, conference style. DOE will present summaries of comments received before the public meeting, allow time for prepared general statements by participants, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will allow, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly and comment on statements made by others. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may also ask questions of participants concerning other matters relevant to this rulemaking. The official conducting the public meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the public meeting.

A transcript of the public meeting will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this notice. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

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

Submitting comments via regulations.gov. The 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.

Do not submit to regulations.gov information for which disclosure is

restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (CBI)). Comments submitted through regulations.gov cannot be claimed as CBI. Comments received through the Web site will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through 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 regulations.gov provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or mail. Comments and documents submitted via email, hand delivery, or mail also will be posted to 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 mail or hand delivery or courier, please provide all items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (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. According 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, postal mail, or hand delivery or courier 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. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include: (1) A description of the items; (2) whether and why such items are customarily treated as confidential within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information has previously been made available to others without obligation concerning its confidentiality; (5) an explanation of the competitive injury to the submitting person that would result from public disclosure; (6) when such information might lose its confidential character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

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).

E. Issues on Which DOE Seeks Comment

Although DOE welcomes comments on any aspect of this proposal, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

1. Component Level Standards

In this NOPR, DOE proposes to set separate standards for the panels, display doors, non-display doors, and refrigeration system of a walk-in, but is not proposing to establish an overall performance standard for the envelope or for the walk-in as a whole. DOE requests that interested parties submit comments about this approach. See section III.A for further details.

2. Market Performance Data

As part of the market assessment, DOE collects information that provides an overall picture of the market for the walk-in coolers and freezers. DOE's analysis of market data uses catalogue and performance data to determine the number of products on the market at varying efficiency levels. However, WICF equipment has not previously been rated for efficiency by manufacturers, nor has an efficiency metric been established for the equipment. DOE requests that interested parties submit market performance data to help inform DOE's analysis. See section IV.A for further details.

3. Definitions

In this NOPR, DOE proposes to amend the existing definition of display door and to add definitions of passage door and freight door, as follows.

DOE proposes to amend the existing definition of display door to include all doors that are composed of 50 percent or more glass or another transparent material. This amendment is intended to classify passage doors that are mostly composed of glass as display doors because the utility and construction of glass passage doors more closely resemble that of a display door. DOE proposes the following amended definition of display door: ''Display door means a door that—(1) is designed for product display; or (2) has 50 percent or more of its surface area composed of glass or another transparent material.'' The amended definition would affect both the test procedure (by potentially subjecting a broader range of equipment to testing) and the energy conservation standards. DOE requests comment on the proposed definition of display door.

DOE is also proposing a definition for passage doors in order to differentiate passage doors from freight doors. Passage doors are mostly intended for the passage of people and small machines such as hand carts. DOE proposes the following definition of passage door: ''Passage door means a door that is used as a means of access for people and is less than 4 feet wide and 8 feet tall.'' DOE requests comment on the proposed definition of passage door.

Freight doors tend to be larger than passage doors and are typically used to allow machines, such as forklifts, into walk-ins. DOE is proposing a definition of ''freight door'' to distinguish it from a passage door. DOE proposes the following definition of freight door: ''Freight door means a door that is not a passage door and is equal to or larger than 4 feet wide and 8 feet tall.'' DOE requests comment on the proposed definition of freight door.

See section IV.A.1 for further information on the definitions.

4. Equipment Included in the Rulemaking

DOE proposes not to include certain types of equipment in the rulemaking analysis. DOE identified three types of panels used in the walk-in industry: display panels, floor panels, and non-floor panels. Based on its research, DOE determined that Display panels, typically found in beer caves (walk-ins used for the display and storage of beer or other alcoholic beverages often found in a supermarket) make up a small percentage of all panels currently present in the market. Therefore, because of the extremely limited energy savings potential currently projected to result from amending the requirements that these panels must meet, DOE is not proposing standards for walk-in display panels in this NOPR. Also, DOE is declining to set a performance-based standard for walk-in cooler floor panels. All other types of panels, freezer floor and non-floor, will be subject to a performance standard. DOE requests comment on this approach and requests market data to better understand the market share of display panels and walk-in cooler floor panels.

DOE also proposes not to include blast freezer refrigeration systems, which are designed to quickly freeze food and then store it at a holding temperature, in this rulemaking analysis. DOE received comments regarding the performance difference and the higher energy consumption of blast freezers as compared to storage freezers. DOE questions whether blast freezer refrigeration systems would be less efficient than storage freezers and seeks information regarding whether blast freezers would face difficulty in complying with DOE's proposed standards. Furthermore, if blast freezers cannot comply with those proposed standards, DOE requests test procedure data confirming the same. See section IV.A.2 for details.

5. Type of Refrigerant Analyzed

DOE based its analysis on refrigeration equipment using R404A, a hydrofluorocarbon (HFC) refrigerant, as it is widely used in the walk-ins industry. DOE received comments supporting the use of HFC refrigerants, but also suggested considering refrigerants with lower global warming potential (GWP) due to the shift in the marketplace toward these products. DOE acknowledges that there are government-wide efforts to reduce emissions of HFCs, and such actions are being pursued both through international diplomacy as well as domestic actions. DOE, in concert with other relevant agencies, will continue to work with industry and other stakeholders to identify safer and more sustainable alternatives to HFCs while evaluating energy efficiency standards for this equipment. DOE requests comment on the extent of current use or future availability of lower GWP refrigerants and asks manufacturers and chemical producers to submit data related to the ability of equipment (existing or redesigned) using HFC alternative refrigerants to meet the proposed standard. See section IV.A.2.b for further details. DOE also requests data and evidence to support estimates of the cost of any incremental technology or equipment redesign that may be needed in order to compensate for any energy efficiency losses associated with the use of alternative refrigerants to meet the standards proposed in this notice.

6. Refrigeration Classes

DOE has proposed separate classes for dedicated condensing refrigeration systems and unit coolers connected to multiplex condensing systems. However, DOE does not propose to create separate classes for dedicated packaged systems (where the unit cooler and condensing unit are integrated into a single piece of equipment) and dedicated split systems (where the unit cooler and condensing unit are separate pieces of equipment connected by refrigerant piping). Due to the small market share of packaged systems, DOE proposes to base the standard for dedicated condensing systems on an analysis of split systems. DOE requests comment on its proposal not to consider dedicated packaged systems and dedicated split systems as separate classes, and specifically asks whether this proposal would unfairly disadvantage any manufacturers.

In addition, DOE proposes one standard level for high-capacity equipment and another for low-capacity equipment within the dedicated condensing category (because the compressor is covered only for DC systems). High- and low-capacity equipment would thus also be considered different equipment classes, with the classes divided at a threshold of 9,000 Btu/h. DOE requests comment on this proposal, particularly the capacity threshold between high- and low-capacity equipment.

See section IV.A.3.b for details about the refrigeration system equipment classes.

7. Cycle Efficiency

DOE considered design options manufacturers could use to improve cycle efficiency; for example, economizer cooling. In the screening analysis, DOE screened out economizer cooling based on utility to the consumer, one of the four screening criteria. Specifically, economizer cooling is not effective in areas of the country where the temperature does not drop below a walk-in's temperature. DOE did not identify any other options to improve cycle efficiency beyond what was already considered. However, DOE realizes that there may be other methods and designs manufacturers could use to improve cycle efficiency and requests specific recommendations on such methods and designs, as well as how they could be incorporated into the analysis of standard levels. See section IV.B.2.b for details.

8. Envelope Representative Sizes

DOE used three different panel sizes to represent the variation in panels within each equipment class. DOE determined the sizes based on market research and calculated the impact of size on the test metric, U-factor. DOE requests comment on the representative sizes used in the analysis and whether other sizes should be considered.

Similar to panels, DOE used three different sizes to represent the differences in doors within each class for walk-in display and non-display doors. The sizes of the doors were determined by market research, and can be found in section IV.C.1.a for display and non-display doors. DOE requests comment on the representative equipment sizes analyzed in the proposed analysis. See section IV.C.1.a for further details.

9. Performance Data for Envelope Components

DOE's engineering model separately analyzes panels, display doors, and non-display doors. The models estimate the performance of the baseline equipment and levels of performance above the baseline associated with specific design options that are added cumulatively to the baseline equipment. Results for performance of all components can be found in appendix 5A of the TSD. DOE requests comment on the performance data and requests any data manufacturers can provide about the performance of panels, display doors, or non-display doors and their design options. See section IV.A for further details.

10. Refrigeration Metric

The refrigeration energy model calculates the annual energy consumption and the Annual Walk-In Energy Factor (AWEF) of walk-in

coolers and freezers at various performance levels using a design option approach. AWEF is the ratio of the total heat, not included in the heat generated by the operation of the refrigeration system, removed, in Btu, from a walk-in box during a one-year period of usage to the total energy input of refrigeration systems, in watt-hours, during the same period. DOE proposes using AWEF as the metric to set standards for the refrigeration system and requests comment on this proposal. See section IV.C.2.a for further details.

11. Manufacturing Markups

DOE calculated the manufacturer's selling price of the walk-in cooler and freezer equipment by multiplying the manufacturer's production cost by a markup and adding the equipment's shipping cost. The markup affects the manufacturer's selling price, which is a critical input to the downstream economic analyses. DOE calculated an average markup for panels to be 32 percent, for display doors to be 50 percent, for non-display doors to be 62 percent, and for refrigeration to be 35 percent. DOE requests comment on the proposed markups. See section IV.C.3.d for further details.

12. Envelope Component Shipping Prices

DOE has found through its research that most panel, display door, and non-display door manufacturers use less than truck load freight to ship their respective components. DOE also found that typically none of the manufacturers mark up the shipments for profit, and instead include the cost of shipping as part of the price quote. DOE has conducted its analysis accordingly and requests comment on the shipping prices found in chapter 5 of the NOPR TSD. See section IV.C.3.e for further details.

13. Panel and Door Baseline Assumptions

In the NOPR analysis, DOE used wood framing members as the baseline framing material in panels. DOE's analysis assumes the typical wood frame completely borders the insulation and is 1.5 inches wide. DOE requests comment on its baseline specifications for walk-in panels, specifically the assumptions about framing material and framing dimensions.

DOE assumed that the baseline non-display doors are constructed in a similar manner to baseline panels. Baseline non-display doors consist of wood framing materials 1.5 inches wide that completely border foamed-in-place polyurethane insulation. For non-display doors, DOE also proposes to include a 2.25 ft^2 window that conforms to the standards set by EPCA on all non-display passage doors regardless of the passage door's size. DOE analyzed two different size windows for non-display freight doors. DOE assumed that a small freight door has a 2.25 ft^2 window and that both medium and large freight doors have 4 ft^2 windows. DOE requests comment on the baseline specifications for non-display doors, specifically on the size of the windows included in the baseline door.

DOE made several assumptions about baseline display doors in its analysis. First it assumed that baseline display cooler doors are composed of two panes of glass with argon gas fill and hard coat low-e coating. Second, DOE assumed that the baseline cooler display door requires 2.9 W/ft^2 of anti-sweat heater wire and does not have a heater wire controller. Baseline display freezer doors in DOE's analysis are composed of three panes of glass, argon gas, and soft coat low-e coating. Third, DOE assumed that baseline freezer doors use 15.23 W/ft^2 of anti-sweat heater wire power and require an anti-sweat heater wire controller. Finally, DOE assumed that each baseline door is associated with one fluorescent light with an electronic ballast, and that a door shorter than 6.5 feet has a 5-foot fluorescent bulb and a door equal to or taller than 6.5 feet has a 6-foot fluorescent bulb. DOE requests comment on the baseline assumptions for display cooler and freezer doors. In particular, DOE requests data illustrating the energy or power consumption of anti-sweat heaters found on cooler and freezer display doors.

See section IV.C.4.a for further details on the baseline assumptions.

14. Condensing Unit and Unit Cooler Components

In its analysis of baseline equipment, DOE included all necessary components of the refrigeration system that came from the manufacturer. However, DOE has tentatively decided against including components in its engineering analysis that are not specifically part of the unit cooler or condensing unit; for example, refrigerant piping connecting a unit cooler to a multiplex condensing system. DOE assumes that these are not included in the manufacturer's selling price of the equipment, and would be supplied by the contractor upon installation. DOE requests comment on this assumption. See section IV.C.4.b for further details.

15. Refrigeration Temperature Difference Assumption

In determining appropriate temperature set points, DOE considered information from various sources in formulating its assumptions: Comments, research, and confidential and non-confidential discussions with manufacturers and other parties. DOE notes that the ambient temperature specified in the test procedure is 90 or 95 degrees for indoor and outdoor condensing units, respectively. Given that the system must maintain a reasonable temperature difference (TD) between the SCT and the ambient temperature, the SCT during the test procedure would be higher than the 90–95 degree assumption recommended. Even though the set point during actual use may be lower, equipment is rated—and evaluated for meeting the standard—at the test procedure rating points. DOE requests comment on this assumption, particularly whether the TDs for baseline and higher efficiency equipment are appropriate. See section IV.C.4.b for further details.

16. Panel Design Options

In the proposed engineering analysis for walk-in panels, DOE included design options that increase the baseline insulation thickness, change the baseline insulation material from foam-in-place polyurethane to a hybrid of polyurethane and VIP, change the baseline framing material from wood to high-density polyurethane, and eliminate a non-floor-panel's framing material. DOE proposes that floor panels must retain some type of framing material, and that high-density polyurethane framing materials found in a panel have the same dimensions as the wood framing materials. DOE requests comment on the design options for panels, including the specifications for high-density polyurethane framing materials, manufacturer conversion costs for increasing the baseline panel thickness, and any estimated changes in repair, maintenance, or installation costs. DOE also requests comment on the technological feasibility of the panel options analyzed and whether the design options selected would cause any lessening of the utility or the performance of the walk-ins. See section IV.C.5.a for further details.

17. Display and Non-Display Door Design Options

The design options that DOE proposes for display doors include improved glass packs, anti-sweat heater controls for cooler doors, LED lighting, and lighting sensors. DOE does not propose

anti-sweat heater controls for freezer display doors because baseline freezer doors are required to have a controller due to the amount of power consumed by the anti-sweat heater wire. DOE requests comment on the proposed design options, specifically any heat transfer data for the improved glass packs detailed in chapter 5 of the TSD.

The design options that DOE proposes for non-display doors include increased insulation thickness, changing the insulation material from baseline to a hybrid of polyurethane and VIP, changing the baseline framing material from wood to high-density polyurethane, improving the window's glass pack, and adding an anti-sweat heater wire controller to the door. DOE requests comment on the proposed design options for non-display doors, and specifically requests comment on the manufacturer conversion investments required to update product designs and manufacturing lines in order to product compliant products; information regarding any changes in repair, maintenance, or installation costs of the window improvements detailed in chapter 5 of the TSD. DOE also requests comment on the technological feasibility of the panel options analyzed and whether the design options selected would cause any lessening of the utility or the performance of the walk-ins.

See section IV.C.5.a and chapter 5 of the TSD for further details on the display and non-display door design options.

18. Refrigeration System Design Options

DOE is proposing to include the use of improved condenser coils as a design option, wherein the condenser coil increases by a certain percentage from its original size. After performing analytical calculations, DOE tentatively believes that increasing the coil size of the condenser would not require an increase in the coil size of the evaporator. However, DOE requests comment on this assumption, particularly from manufacturers that currently utilize larger condenser coils.

DOE is proposing to use high-efficiency condenser fan motors as a design option, and it is critical to accurately estimate the input power due to the energy savings associated with this option. DOE calculated the input power from the efficiency ratings provided. However, DOE received comments that this approach may not provide an accurate method to measure input power and requests feedback on how it should determine input power.

DOE also considered a design option which modulates or adjusts the speed of the evaporator fans when the compressor is off. DOE is aware of the potential effects of evaporator fan control on food safety but has tentatively concluded that the controls it analyzed are limited (to 50 percent fan cycling or 50 percent fan speed when the compressor is off) such that food temperatures could be adequately maintained in either control case. DOE requests comment from interested parties as to whether food temperatures would be adequately maintained in the specific control cases it has analyzed, and, if not, what would be an appropriate control strategy. DOE particularly requests any data interested parties can provide to show the relationship between fan controls and food temperatures. DOE also seeks information on whether other components may be necessary to ensure food temperatures would be adequately maintained, such as extra thermostats located in certain areas of the walk-in.

DOE has adjusted its analysis of the floating head pressure design option after taking commenters' recommendations into account. DOE included components and analytical changes with respect to fan power, temperature differences, and SCT in response to stakeholder comments. DOE requests comment on its revised assumptions and implementation of this option, particularly regarding the cost to implement various floating head pressure control schemes and the energy savings that would be achieved. DOE requests comment on the technological feasibility of the panel options analyzed and whether the design options selected would cause any lessening of the utility or the performance of the walk-ins. DOE also requests information on any changes in repair, maintenance, or installation costs associated with the technologies needed to meet the proposed standards.

See section IV.C.5.b and chapter 5 of the TSD for further details on the refrigeration system design options.

19. Relative Equipment Sizing

In the Energy Use Analysis, DOE calculates the expected energy consumption of the covered equipment, as installed. To do so, DOE makes certain assumptions about the relative sizing of refrigeration systems with envelopes, which determines how often the compressor runs during a day, which in turn affects the energy use of the equipment. For the NOPR analysis, DOE assumed that the runtime of the refrigeration system is 13.3 hours per day for coolers and 15 hours per day for freezers at full design point capacity and requests comment on this assumption. See section IV.E.1 for further details.

20. Equipment Price Trends

DOE assumes in its price forecasts for this NOPR that the real prices of walk-in cooler and freezer equipment decrease slightly over time. DOE performed price trends sensitivity calculations to examine the dependence of the analysis results on different analytical assumptions. DOE invites comment on methods to improve its equipment price forecasting, as well as any data supporting alternate methods. For more details, see section IV.F.1.

21. Refrigerant Charge Maintenance Costs

DOE received comments on maintenance costs associated with refrigerant leakage and refrigerant charge and assumed a certain maintenance cost for the refrigeration system. DOE requests that interested parties submit data on refrigerant charge maintenance costs. See section IV.F.6 for further details.

22. Compliance Date of Standards

DOE's proposed standards will apply to products that are manufactured beginning on the date 3 years after the final rule is published unless DOE determines, by rule, that a 3-year period is inadequate, in which case DOE may extend the compliance date for that standard by an additional 2 years. (42 U.S.C. 6314(f)(4)(B)) DOE proposes to provide 3 years for compliance with this standard, but seeks comment on whether it should consider a longer compliance date as authorized, and, if so, by how much. See section IV.F.9 for details.

23. Base-Case Efficiency Distributions

To accurately estimate the share of consumers who would likely be impacted by a standard at a particular efficiency level, DOE's LCC analysis considers the projected distribution of product efficiencies that consumers purchase under the base case (*i.e.,* the case without new energy efficiency standards). DOE examined the range of standard and optional equipment features offered by refrigeration manufacturers and estimated that for refrigeration systems, 75 percent of the equipment sold under the base case would be at DOE's assumed baseline level—that is, the equipment would comply with the existing standards in EPCA, but have no additional features that improve efficiency. The remaining 25 percent of equipment would have features that would increase its efficiency to a level commensurate with

the first design option in each equipment class. For envelope components, all base case shipments are assumed to have only a single EPCA-compliant efficiency level except for cooler display doors. For cooler display doors, shipments in the base case would be a mix of 80 percent EPCA-compliant equipment and 20 percent higher efficiency equipment. For both refrigeration systems and envelope components, DOE assumed that the base-case energy efficiency distribution would remain constant throughout the forecast period. DOE requests comment on its assumptions about base-case efficiency distributions. See sections IV.F.10 and IV.G.2 for details.

24. Trial Standard Level Equations

In this NOPR, DOE proposes standard levels for different classes of refrigeration systems. DOE expressed the AWEF for large capacity dedicated condensing systems as a single value and expressed the AWEF for the small capacity dedicated condensing systems as a linear equation normalized to the system gross capacity. DOE calculated a single minimum AWEF for each class of multiplex condensing systems. The methodology DOE used to develop the AWEF values and equations is detailed in appendix 10D of the TSD. DOE requests comment on the AWEF equations and the methodology for determining them. In particular, DOE asks interested parties to submit data on how the efficiency of typical refrigeration systems varies by capacity. Based on comments and additional data DOE receives on the NOPR, DOE may consider other methods of calculating the minimum AWEF associated with the TSLs for each equipment class. See section V.A.2 for details.

25. Proposed Standard

In this NOPR, DOE proposes TSL 4 as the energy conservation standard for equipment covered under this rulemaking. DOE proposes this standard because it tentatively believes that it represents the maximum improvement in energy efficiency that is technologically feasible and economically justified, and that the benefits outweigh the burdens. For a full description of the benefits and burdens of TSL 4, see section V.C.

We seek comment, information and data on whether other combinations of standards for refrigeration units, panels, or doors can improve energy efficiency that is technologically feasible and economically justified, taking into consideration effects on the manufacturers and the end users of walk-in coolers and freezers.

26. Product Attributes

DOE requests comment on whether there are features or attributes of the more energy efficient walk-in coolers and freezers that manufacturers would produce to meet the standards in this proposed rule that might lessen the utility or performance of these products in current uses (i.e., restaurants, food service providers, grocery stores and convenience stores). An example of such an effect might be that grocers or restaurant operators would change where, how, how much and for how long food items would be stored or whether thicker panels would detrimentally reduce the refrigerated area of a walk-in making higher efficiency panels less desirable. DOE requests comment specifically on how any such effects should be weighed in the choice of standards for these walk-in coolers and freezers for the final rule.

27. Impact of Amended Standards on Future Shipments

DOE welcomes stakeholder input and estimates on the effect of amended standards on future walk-in cooler and freezer shipments. We are seeking information on what factors drive the demand for walk-in coolers and freezers and whether those factors are likely to remain unchanged in the relevant analytic time period of 30 years. For example, a commenter submitted that 70 percent of all restaurants and 90 percent of all small restaurants fail due to insufficient up-front capital. In light of this information, are there better ways and data to project future shipments of walk-in coolers and freezers than the current method which is based on the number of buildings projected to house walk-in coolers and freezers? DOE also welcomes input and data on the demand elasticity estimates used in the analysis.

28. Learning Impacts on Price Forecast for Future Shipments

Currently, DOE projects future prices by subtracting the cost reductions associated with learning effects from the cost associated with the amended standards. DOE analyzes learning effects using PPI, a quality adjusted index of wholesale prices, as a proxy for price of commercial refrigerators. DOE is seeking input, and price data that could be used in place of PPI. Also DOE is seeking input on the magnitude of the price data and the cause of those price changes.

29. Analytic Timeline

For this rulemaking, DOE analyzed the effects of this proposal assuming that the walk-in coolers and freezers would be available to purchase starting 2017 until 2047 and includes the useful life of the last unit sold, extending the analysis to 2073. DOE also undertook a sensitivity analysis using nine rather than 30 years of product shipments. The choice of a 30-year period is consistent with the DOE analysis for other products and commercial equipment. The choice of a 9-year period is a proxy for the timeline in EPCA for the review of certain energy conservation standards and potential revision of and compliance with such revised standards. We are seeking input, information and data on whether there are ways to refine the analytic timeline further.

In particular, given that walk-in coolers and freezers are largely used by the food service industry, convenience stores and small grocers, we are seeking information on whether the turnover rates in the food service industry, convenience stores and small grocers affects the useful life of walk-in coolers and freezers.

30. Markets for Used Walk-In Coolers and Freezers

DOE is seeking information on whether there is a significant market for used walk-in coolers and freezers. Given the high turnover rate of food service industry (e.g., a commenter noted 70 to 90 percent failure rates for restaurants), we are seeking to understand whether it is reasonable to assume that the useful life of the refrigeration system would be 12 years and other components 15 years due to active used equipment markets.

31. Small Businesses

During the Framework and preliminary analysis public meetings, DOE received many comments regarding the potential impacts of amended energy conservation standards on small business manufacturers of walk-in coolers and freezers. DOE notes that the small businesses could be disproportionately affected by this standard because of the cost of testing, potential increase in materials and potential difficulty in obtaining financing. DOE seeks comment and, in particular, data, in its efforts to quantify the impacts of this rulemaking on small business manufacturers.

32. Rebound Effect

DOE assumed a rebound factor of one, or no effect, because walk-ins must cool their contents at all times and it is not possible for consumers to operate them more frequently. A rebound effect occurs when users operate higher efficiency equipment more frequently and/or for longer durations, thus offsetting estimated energy savings. DOE

seeks comment on this assumption and whether other factors should be considered in the rebound effect, such as a decision to buy a larger system due to increased lifetime costs savings, or money saved in electricity bills with more efficient walk-in coolers and freezers being used for other electricity consuming activities.

33. Update to Social Cost of Carbon Values

DOE solicits comment on the application of the new SCC values used to determine the social benefits of CO2 emissions reductions over the rulemaking analysis period. The rulemaking analysis period covers from 2017 to 2046 plus an additional 15 years to account for the lifetime of the equipment purchased between 2017 and 2046. In particular, the agency solicits comment on the agency's derivation of SCC values after 2050 where the agency applied the average annual growth rate of the SCC estimates in 2040–2050 associated with each of the four sets of values.

34. Cumulative Regulatory Burdens

The agency seeks input on the cumulative regulatory burden that may be imposed on industry either from recently implemented rulemakings for this product class or other rulemakings that affect the same industry.

VIII. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of today's proposed rule.

List of Subjects in 10 CFR Part 431

Administrative practice and procedure, Confidential business information, Energy conservation, Imports, Intergovernmental relations, Reporting and recordkeeping requirements.

Issued in Washington, DC, on August 29, 2013.

Mike Carr,

Acting Assistant Secretary, Energy Efficiency and Renewable Energy.

For the reasons set forth in the preamble, DOE proposes to amend part 431 of chapter II of title 10, of the Code of Federal Regulations, as set forth below:

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 431 continues to read as follows:

Authority: 42 U.S.C. 6291–6317.

■ 2. Section 431.302 is amended by revising the definition for ''Display door'' and adding, in alphabetical order, definitions for ''Freight door'' and ''Passage door'' to read as follows:

§ 431.302 Definitions concerning walk-in coolers and freezers.

* * * * *

Display door means a door that:

(1) Is designed for product display; or

(2) Has 75 percent or more of its surface area composed of glass or another transparent material.

* * * * *

Freight door means a door that is not a display door and is equal to or larger than 4 feet wide and 8 feet tall.

* * * * *

Passage door means a door that is not a freight or display door.

* * * * *

■ 3. In § 431.304, revise paragraph (a) to read as follows:

§ 431.304 Uniform test method for the measurement of energy consumption of walk-in coolers and walk-in freezers.

(a) Scope. This section provides test procedures for measuring, pursuant to EPCA, the energy consumption of walk-in coolers and walk-in freezers.

* * * * *

■ 4. In § 431.306, revise paragraph (a)(3), and add paragraphs (c), (d), (e), and (f) to read as follows:

§ 431.306 Energy conservation standards and their effective dates.

(a) * * *

(3) Contain wall, ceiling, and door insulation of at least R–25 for coolers and R–32 for freezers, except that this paragraph shall not apply to:

(i) Glazed portions of doors not to structural members and

(ii) A walk-in cooler or walk-in freezer component if the component manufacturer has demonstrated to the satisfaction of the Secretary in a manner consistent with applicable requirements that the component reduces energy consumption at least as much as if such insulation requirements of subparagraph (a)(3) were to apply.

(b) * * *

(c) *Walk-in cooler and freezer panels.*

Class Descriptor	Class	Equations for Maximum U-Factor (Btu/h-ft^2-°F)*
Structural Panel, Medium Temperature**	SP.M	$-0.012\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.024\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.041$
Structural Panel, Low Temperature	SP.L	$-0.0083\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)^2+0.017\times\left(\frac{A_{\text{nf edge}}}{A_{\text{nf core}}}\right)+0.029$
Floor Panel, Low Temperature	FP.L	$-0.0091\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)^2+0.018\times\left(\frac{A_{\text{fp edge}}}{A_{\text{fp core}}}\right)+0.033$

*$A_{\text{nf edge}}$ and $A_{\text{nf core}}$ represent the edge and core surface area of the structural panel, respectively. $A_{\text{fp edge}}$ and $A_{\text{fp core}}$ represent the edge and core surface area of the floor panel, respectively.

** A structural panel is a panel that is not used to construct a walk-in's floor. This includes, but is not limited to, ceiling panels and wall panels.

(d) *Walk-in cooler and freezer display doors.*

Class descriptor	Class	Equations for maximum energy consumption (kWh/day)*
Display Door, Medium Temperature	DD.M	$0.049 \times A_{dd} + 0.39$
Display Door, Low Temperature	DD.L	$0.33 \times A_{dd} + 0.38$

*A_{dd} represents the surface area of the display door.

(e) *Walk-in cooler and freezer non-display doors.*

Class descriptor	Class	Equations for maximum energy consumption (kWh/day)*
Passage Door, Medium Temperature	PD.M	$0.0032 \times A_{nd} + 0.22$
Passage Door, Low Temperature	PD.L	$0.14 \times A_{nd} + 4.0$
Freight Door, Medium Temperature	FD.M	$0.0073 \times A_{nd} + 0.082$
Freight Door, Low Temperature	FD.L	$0.11 \times A_{nd} + 5.4$

* A_{nd} represents the surface area of the non-display door.

(f) *Walk-in cooler and freezer refrigeration systems.*

Class descriptor	Class	Equations for minimum AWEF (Btu/W–h)*
Dedicated Condensing, Medium Temperature, Indoor System, < 9,000 Btu/h Capacity	DC.M.I, < 9,000	$2.63 \times 10^{-4} \times Q + 4.53$
Dedicated Condensing, Medium Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	DC.M.I, ≥ 9,000	6.90
Dedicated Condensing, Medium Temperature, Outdoor System, < 9,000 Btu/h Capacity	DC.M.O, < 9,000	$1.34 \times 10^{-3} \times Q + 0.12$
Dedicated Condensing, Medium Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	DC.M.O, ≥ 9,000	12.21
Dedicated Condensing, Low Temperature, Indoor System, < 9,000 Btu/h Capacity	DC.L.I, < 9,000	$1.93 \times 10^{-4} \times Q + 1.89$
Dedicated Condensing, Low Temperature, Indoor System, ≥ 9,000 Btu/h Capacity	DC.L.I, ≥ 9,000	3.63
Dedicated Condensing, Low Temperature, Outdoor System, < 9,000 Btu/h Capacity	DC.L.O, < 9,000	$5.70 \times 10^{-4} \times Q + 1.02$
Dedicated Condensing, Low Temperature, Outdoor System, ≥ 9,000 Btu/h Capacity	DC.L.O, ≥ 9,000	6.15
Multiplex Condensing, Medium Temperature	MC.M	10.74
Multiplex Condensing, Low Temperature	MC.L	5.53

* Q represents the system gross capacity as calculated by the procedures set forth in AHRI 1250.

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Part III

Department of Energy

10 CFR Part 431

Energy Conservation Program: Energy Conservation Standards for Commercial Refrigeration Equipment; Proposed Rule

DEPARTMENT OF ENERGY

10 CFR Part 431

[Docket No. EERE–2010–BT–STD–0003]

RIN 1904–AC19

Energy Conservation Program: Energy Conservation Standards for Commercial Refrigeration Equipment

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

ACTION: Notice of proposed rulemaking and public meeting.

SUMMARY: The Energy Policy and Conservation Act of 1975 (EPCA), as amended, prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment, including commercial refrigeration equipment (CRE). EPCA also requires the U.S. Department of Energy (DOE) to determine whether more-stringent, amended standards would be technologically feasible and economically justified, and would save a significant amount of energy. In this notice, DOE proposes amended energy conservation standards for commercial refrigeration equipment. The notice also announces a public meeting to receive comment on these proposed standards and associated analyses and results.

DATES: DOE will hold a public meeting on Thursday, October 3, 2013, from 9 a.m. to 4 p.m., in Washington, DC. The meeting will also be broadcast as a webinar. See section VII, ''Public Participation,'' for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

DOE will accept comments, data, and information regarding this notice of proposed rulemaking (NOPR) before and after the public meeting, but no later than November 12, 2013. See section VII, ''Public Participation,'' for details.

ADDRESSES: The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room 8E–089, 1000 Independence Avenue SW., Washington, DC 20585. To attend, please notify Ms. Brenda Edwards at (202) 586–2945. Persons can attend the public meeting via webinar. For more information, refer to section VII, Public Participation.

Any comments submitted must identify the NOPR for Energy Conservation Standards for Commercial Refrigeration Equipment and provide docket number EERE–2010–BT–STD–0003 and/or regulatory information number (RIN) 1904–AC19. Comments may be submitted using any of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov*. Follow the instructions for submitting comments.

2. *Email: CRE-2010-STD-0003@ee.doe.gov*. Include the docket number and/or RIN in the subject line of the message.

3. *Mail:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE–2J, 1000 Independence Avenue SW., Washington, DC 20585–0121. If possible, please submit all items on a CD. It is not necessary to include printed copies.

4. *Hand Delivery/Courier:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 950 L'Enfant Plaza SW., Suite 600, Washington, DC 20024. Telephone: (202) 586–2945. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this proposed rule may be submitted to Office of Energy Efficiency and Renewable Energy through the methods listed above and by email to *Chad_S_Whiteman@omb.eop.gov*.

For detailed instructions on submitting comments and additional information on the rulemaking process, see section VII of this document (''Public Participation'').

Docket: The docket, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at regulations.gov. All documents in the docket are listed in the 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.

A link to the docket Web page can be found at: *http://www.regulations.gov/#!docketDetail;D=EERE-2010-BT-STD-0003*. This Web page will contain a link to the docket for this notice on the regulations.gov site. The regulations.gov Web page will contain simple instructions on how to access all documents, including public comments, in the docket. See section VII for further information on how to submit comments through *www.regulations.gov*.

For further information on how to submit a comment, review other public comments and the docket, or participate in the public meeting, contact Ms. Brenda Edwards at (202) 586–2945 or by email: *Brenda.Edwards@ee.doe.gov*.

FOR FURTHER INFORMATION CONTACT: Mr. Charles Llenza, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, EE–2J, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 586–2192. Email: *commercial_refrigeration_equipment@EE.Doe.Gov*.

Ms. Jennifer Tiedeman, U.S. Department of Energy, Office of the General Counsel, GC–71, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 287–6111. Email: *Jennifer.Tiedeman@hq.doe.gov*.

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I. Summary of the Proposed Rule

Title III, Part C of the Energy Policy and Conservation Act of 1975 (EPCA), Public Law 94–163 (42 U.S.C. 6311–6317, as codified), added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, a program covering certain industrial equipment, which includes the commercial refrigeration equipment that is the focus of this notice.[1] [2] EPCA specifies that any new or amended energy conservation standard that DOE prescribes for the equipment covered shall be designed to achieve the maximum improvement in energy efficiency that the Secretary of Energy (Secretary) determines is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A) and 6316(e)(1)) Furthermore, EPCA mandates that the new or amended standard must result in significant conservation of energy. (42 U.S.C. 6295(o)(3)(B) and 6316(e)(1)) In accordance with these and other statutory criteria discussed in this

[1] For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A–1.

[2] All references to EPCA in this document refer to the statute as amended by the American Energy Manufacturing Technical Corrections Act (AEMTCA), Public Law 112–210 (Dec. 18, 2012).

notice, DOE proposes to adopt amended energy conservation standards for commercial refrigeration equipment. The proposed standards, which consist of maximum daily energy consumption (MDEC) values as a function of either refrigerated volume or total display area (TDA), are shown in Table I.1. DOE proposes that the standards proposed in this NOPR, if adopted, would apply to all equipment listed in Table I.1 that is manufactured in, or imported into, the United States on or after 3 years following the publication date of the final rule. (42 U.S.C. 6313(c)(6)(C)) For the NOPR analysis, DOE assumed a publication date in 2014 for this final rule and a compliance date in 2017 for the amended standards established by the final rule.

TABLE I.1—PROPOSED ENERGY CONSERVATION STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT

[Assumes compliance beginning in 2017]

Equipment class *	Proposed standard level ** †
VCT.RC.L	0.43 × TDA + 2.03
VOP.RC.M	0.61 × TDA + 3.03
SVO.RC.M	0.63 × TDA + 2.41
HZO.RC.L	0.57 × TDA + 6.88
HZO.RC.M	0.35 × TDA + 2.88
VCT.RC.M	0.08 × TDA + 0.72
VOP.RC.L	2.11 × TDA + 6.36
SOC.RC.M	0.39 × TDA + 0.08
VOP.SC.M	1.51 × TDA + 4.09
SVO.SC.M	1.5 × TDA + 3.99
HZO.SC.L	1.92 × TDA + 7.08
HZO.SC.M	0.75 × TDA + 5.44
HCT.SC.I	0.49 × TDA + 0.37
VCT.SC.I	0.52 × TDA + 2.56
VCS.SC.I	0.35 × V + 0.81
VCT.SC.M	0.04 × V + 1.07
VCT.SC.L	0.22 × V + 1.21
VCS.SC.M	0.03 × V + 0.53
VCS.SC.L	0.13 × V + 0.43
HCT.SC.M	0.02 × V + 0.51
HCT.SC.L	0.11 × V + 0.6
HCS.SC.M	0.02 × V + 0.37
HCS.SC.L	0.12 × V + 0.42
PD.SC.M	0.03 × V + 0.83
SOC.SC.M	0.32 × TDA + 0.53
VOP.RC.I	2.68 × TDA + 8.08
SVO.RC.L	2.11 × TDA + 6.36
SVO.RC.I	2.68 × TDA + 8.08
HZO.RC.I	0.72 × TDA + 8.74
VOP.SC.L	3.79 × TDA + 10.26
VOP.SC.I	4.81 × TDA + 13.03
SVO.SC.L	3.77 × TDA + 10.01
SVO.SC.I	4.79 × TDA + 12.72
HZO.SC.I	2.44 × TDA + 9.0
SOC.RC.L	0.83 × TDA + 0.18
SOC.RC.I	0.97 × TDA + 0.21
SOC.SC.I	1.35 × TDA + 0.29
VCT.RC.I	0.51 × TDA + 2.37
HCT.RC.M	0.14 × TDA + 0.11
HCT.RC.L	0.3 × TDA + 0.23
HCT.RC.I	0.35 × TDA + 0.27
VCS.RC.M	0.1 × V + 0.24
VCS.RC.L	0.21 × V + 0.5
VCS.RC.I	0.25 × V + 0.58
HCS.SC.I	0.35 × V + 0.81
HCS.RC.M	0.1 × V + 0.24
HCS.RC.L	0.21 × V + 0.5
HCS.RC.I	0.25 × V + 0.58
SOC.SC.L	0.67 × TDA + 1.12

* Equipment class designations consist of a combination (in sequential order separated by periods) of: (1) an equipment family code (VOP = vertical open, SVO = semivertical open, HZO = horizontal open, VCT = vertical transparent doors, VCS = vertical solid doors, HCT = horizontal transparent doors, HCS = horizontal solid doors, SOC = service over counter, or PD = pull-down); (2) an operating mode code (RC = remote condensing or SC = self-contained); and (3) a rating temperature code (M = medium temperature (38±2 °F), L = low temperature (0±2 °F), or I = ice-cream temperature (−15±2 °F)). For example, "VOP.RC.M" refers to the "vertical open, remote condensing, medium temperature" equipment class. See discussion in chapter 3 of the NOPR technical support document (TSD) for a more detailed explanation of the equipment class terminology.

** "TDA" is the total display area of the case, as measured in the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) Standard 1200–2010, appendix D.

† "V" is the volume of the case, as measured in American National Standards Institute (ANSI)/Association of Home Appliance Manufacturers (AHAM) Standard HRF–1–2004.

A. Benefits and Costs to Customers

Table I.2 presents DOE's evaluation of the economic impacts of the proposed standards on customers of commercial refrigeration equipment, as measured by the average life-cycle cost (LCC) savings [3] and the median payback period (PBP).[4] The average LCC savings are positive for all equipment classes under the standard proposed by DOE in this notice. At TSL 4, the percentage of customers who experience net benefits or no impacts ranges from 59 to 100 percent, and customers experiencing a net cost range from 0 to 41 percent. Chapter 11 presents the LCC subgroup analysis on groups of customers that may be disproportionately affected by the proposed standard.

TABLE I.2—IMPACTS OF PROPOSED STANDARDS ON CUSTOMERS OF COMMERCIAL REFRIGERATION EQUIPMENT

Equipment class *	Average LCC savings 2012$	Median PBP years
VOP.RC.M	$1,493.72	3.91
VOP.RC.L	1,129.51	2.22
VOP.SC.M	691.27	4.39
VCT.RC.M	1,108.13	2.70
VCT.RC.L	797.91	1.64
VCT.SC.M	641.05	2.54
VCT.SC.L	1,342.84	0.96
VCT.SC.I	431.88	1.97
VCS.SC.M	131.80	1.75
VCS.SC.L	220.83	1.15
VCS.SC.I	152.69	2.42
SVO.RC.M	1,008.46	4.50
SVO.SC.M	491.99	4.75
SOC.RC.M	494.51	4.41
HZO.RC.M **	0.00	NA
HZO.RC.L **	0.00	NA
HZO.SC.M	28.78	6.40
HZO.SC.L **	0.00	NA
HCT.SC.M	253.60	3.08
HCT.SC.L	368.92	1.47
HCT.SC.I	42.48	4.28
HCS.SC.M	8.68	4.28
HCS.SC.L	80.72	2.57
PD.SC.M	310.43	2.27
SOC.SC.M	739.75	2.99

* Values have been shown only for primary equipment classes, which are equipment classes that have significant volume of shipments and, therefore, were directly analyzed. See chapter 5 of the NOPR TSD, Engineering Analysis, for a detailed discussion of primary and secondary equipment classes.

** For equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L, no efficiency levels above the baseline were found to be economically justifiable. Therefore, the proposed standards for these equipment classes are the same as the current standards. As a result, LCC savings for these equipment classes are shown as zero. The PBP values are indeterminate and are shown as "NA."

B. Impact on Manufacturers

The industry net present value (INPV) is the sum of the discounted cash flows to the industry from the base year (2013) through the end of the analysis period (2046). Using a real discount rate of 10 percent,[5] DOE estimates that the INPV for manufacturers of commercial refrigeration equipment is $1,162.0 million in 2012$. Under the proposed standards, DOE expects the industry net present value to decrease by 3.95

[3] Life-cycle cost (LCC) of commercial refrigeration equipment is the cost to customers of owning and operating the equipment over the entire life of the equipment. Life-cycle cost savings are the reductions in the life-cycle costs due to amended energy conservation standards when compared to the life-cycle costs of the equipment in the absence of amended energy conservation standards. Further discussion of the LCC analysis can be found in Chapter 8 of the TSD.

[4] Payback period (PBP) refers to the amount of time (in years) it takes customers to recover the increased installed cost of equipment associated with new or amended standards through savings in operating costs. Further discussion of the PBP can be found in Chapter 8 of the TSD.

[5] This is the rate used to discount future cash flows in the Manufacturer Impact Analysis. A discount rate of 10% was calculated based on SEC filings and feedback from manufacturer interviews about the current cost of capital in the industry. For more information, refer to Chapter 12 of the NOPR TSD.

percent to 7.97 percent. Total industry conversion costs are expected to total $87.5 million.

C. National Benefits

DOE's analyses indicate that the proposed standards would save a significant amount of energy. The lifetime savings for commercial refrigeration equipment purchased in the 30-year period that begins in the year of the compliance with amended standards (2017–2046) amount to 1.001 quadrillion British thermal units (quads). The average annual energy savings over the life of commercial refrigeration equipment purchased in 2017 through 2046 is 0.04 quads.[6]

The cumulative national net present value (NPV) of total customer costs and savings of the proposed standards for commercial refrigeration equipment in 2012$ ranges from $1.606 billion (at a 7-percent discount rate) to $4.067 billion (at a 3-percent discount rate). This NPV expresses the estimated total value to customers of future operating cost savings minus the estimated increased installed costs for equipment purchased in 2017–2046, discounted to 2013.

The proposed standards are expected to have significant environmental benefits. The energy savings would result in cumulative greenhouse gas (GHG) emission reductions of 54.88 million metric tons (MMt)[7] of carbon dioxide (CO_2), 265.9 thousand tons of methane, 1.1 thousand tons of nitrous oxide, 70.1 thousand tons of sulfur dioxide (SO_2), 81.1 thousand tons of NO_X and 0.1 tons of mercury (Hg).[8 9]

The value of the CO_2 reductions is calculated using a range of values per metric ton of CO_2 (otherwise known as the Social Cost of Carbon, or SCC) developed by a recent Federal interagency process. The derivation of the SCC values is discussed in section IV.O. DOE estimates that the net present monetary value of the CO_2 emissions reduction would be between $0.31 and $4.55 billion. DOE also estimates the present monetary value of the NO_X emissions reduction would be between $8.8 and $90.7 million at a 7-percent discount rate, and between $19.1 and $196.2 million at a 3-percent discount rate.[10]

Table I.3 summarizes the national economic costs and benefits expected to result from the proposed standards for commercial refrigeration equipment.

TABLE I.3—SUMMARY OF NATIONAL ECONOMIC BENEFITS AND COSTS OF PROPOSED COMMERCIAL REFRIGERATION EQUIPMENT ENERGY CONSERVATION STANDARDS

Category	Present value million 2012$	Discount rate (percent)
Benefits		
Operating Cost Savings	2,695	7
	6,034	3
CO_2 Reduction Monetized Value (at $12.9/Metric Ton) *	308	5
CO_2 Reduction Monetized Value (at $40.8/Metric Ton) *	1,504	3
CO_2 Reduction Monetized Value (at $62.2/Metric Ton) *	2,452	2.5
CO_2 Reduction Monetized Value (at $117.0/Metric Ton) *	4,552	3
NO_X Reduction Monetized Value (at $2639/Ton) **	50	7
	108	3
Total Benefits †	4,249	7
	7,646	3
Costs		
Incremental Installed Costs	1,089	7
	1,967	3
Net Benefits		
Including CO_2 and NO_X Reduction Monetized Value	3,160	7
	5,679	3

* The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The values in parentheses represent the SCC in 2015. The SCC time series incorporate an escalation factor.

** The value represents the average of the low and high NO_X values used in DOE's analysis.

† Total Benefits for both the 3% and 7% cases are derived using the CO_2 reduction monetized value series corresponding to average SCC with 3-percent discount rate.

The benefits and costs of today's proposed standards, for commercial refrigeration equipment sold in 2017–2046, can also be expressed in terms of annualized values. The annualized monetary values are the sum of (1) the annualized national economic value of the benefits from the customer operation of equipment that meets the proposed standards (consisting primarily of operating cost savings from using less energy, minus increases in equipment

[6] Total U.S. commercial sector energy (source energy) used for refrigeration in 2010 was 1.21 quads. Source: U.S. Department of Energy—Office of Energy Efficiency and Renewable Energy. *Buildings Energy Data Book,* Table 3.1.4, 2010 Commercial Energy End-Use Splits, by Fuel Type (Quadrillion Btu). 2012. (Last accessed April 23, 2013.) *http://buildingsdatabook.eren.doe.gov/TableView.aspx?table=3.1.4.*

[7] A metric ton is equivalent to 1.1 U.S. short tons. Results for NO_X and Hg are presented in short tons.

[8] DOE calculated emissions reductions relative to the Annual Energy Outlook (AEO) 2013 Reference case, which generally represents current legislation and environmental regulations for which implementing regulations were available as of December 31, 2012.

[9] DOE also estimated CO_2 and CO_2 equivalent (CO_2eq) emissions that occur through 2030 (CO_2eq includes greenhouse gases such as CH_4 and N_2O). The estimated emissions reductions through 2030 are 16 million metric tons CO_2, 1,687 thousand tons CO_2eq for CH_4, and 72.27 thousand tons CO_2eq for N_2O.

[10] DOE is currently investigating valuation of avoided Hg and SO_2 emissions.

installed cost, which is another way of representing customer NPV); and (2) the annualized monetary value of the benefits of emission reductions, including CO_2 emission reductions.[11]

Although combining the values of operating savings and CO_2 emission reductions provides a useful perspective, two issues should be considered. First, the national operating savings are domestic U.S. customer monetary savings that occur as a result of market transactions, while the value of CO_2 reductions is based on a global value. Second, the assessments of operating cost savings and CO_2 savings are performed with different methods that use different time frames for analysis. The national operating cost savings is measured over the lifetimes of commercial refrigeration equipment shipped in 2017–2046. The SCC values, on the other hand, reflect the present value of some future climate-related impacts resulting from the emission of 1 ton of CO_2 in each year. These impacts continue well beyond 2100.

Table I.4 shows the annualized benefits and costs of the proposed standards. The results of the primary estimate are as follows. Table I.4 shows the primary, low net benefits, and high net benefits scenarios. The primary estimate is the estimate in which the operating cost savings were calculated using the *Annual Energy Outlook 2013 (AEO2013)* Reference Case forecast of future electricity prices. The other two estimates, low net benefits estimate and high net benefits estimate, are based on the low and high electricity price scenarios from the *AEO2013* forecast. At a 7-percent discount rate for benefits and costs, the cost in the primary estimate of the standards proposed in today's notice is $82 million per year in increased equipment costs. The annualized benefits are $203 million per year in reduced equipment operating costs, $75 million in CO_2 reductions (note that DOE used a 3-percent discount rate, along with the corresponding SCC series that uses a 3-percent discount rate, to calculate the monetized value of CO_2 emissions reductions), and $3.75 million in reduced NO_X emissions. In this case, the annualized net benefit amounts to $199 million. At a 3-percent discount rate for all benefits and costs, the cost in the primary estimate of the amended standards proposed in today's notice is $97 million per year in increased equipment costs. The benefits are $299 million per year in reduced operating costs, $75 million in CO_2 reductions, and $5.33 million in reduced NO_X emissions. In this case, the net benefit amounts to $281 million per year.

DOE also calculated the low net benefits and high net benefits estimates by calculating the operating cost savings and incremental installed costs at the *AEO2013* low economic growth case and high economic growth case scenarios, respectively. These scenarios do not change the monetized emissions reductions values. The net benefits and costs for low and high net benefits estimates were calculated in the same manner as the primary estimate by using the corresponding values of operating cost savings and incremental installed costs.

TABLE I.4—ANNUALIZED BENEFITS AND COSTS OF PROPOSED STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT

	Discount rate (percent)	Primary estimate * million 2012$	Low net benefits estimate * million 2012$	High net benefits estimate * million 2012$
Benefits				
Operating Cost Savings	7	203	197	212
	3	299	288	314
CO_2 Reduction Monetized Value (at $12.9/Metric Ton) **	5	19	19	19
CO_2 Reduction Monetized Value (at $40.8/Metric Ton) **	3	75	75	75
CO_2 Reduction Monetized Value (at $62.2/Metric Ton) **	2.5	114	114	114
CO_2 Reduction Monetized Value (at $117.0/Metric Ton) **	3	225	225	225
NO_X Reduction Monetized Value (at $2,639/Ton) **	7	3.75	3.75	3.75
	3	5.33	5.33	5.33
Total Benefits (Operating Cost Savings, CO_2 Reduction and NO_X Reduction) †	7	281	275	290
	3	379	368	394
Costs				
Total Incremental Installed Costs	7	82	84	80
	3	97	100	95
Net Benefits Less Costs				
Total Benefits Less Incremental Costs	7	199	191	210
	3	281	268	299

* This table presents the annualized costs and benefits associated with equipment shipped in 2017–2046. These results include benefits to consumers which accrue after 2046 from the products purchased in 2017–2046. The primary, low, and high estimates utilize forecasts of energy prices from the *AEO2013* Reference Case, Low Economic Growth Case, and High Economic Growth Case, respectively. In addition, incremental equipment costs reflect a medium decline rate for projected product price trends in the Primary Estimate, a low decline rate for projected equipment price trends in the Low Benefits Estimate, and a high decline rate for projected equipment price trends in the High Benefits Estimate. The methods used to derive projected price trends are explained in Appendix 10B.

[11] DOE used a two-step calculation process to convert the time-series of costs and benefits into annualized values. First, DOE calculated a present value in 2013, the year used for discounting the NPV of total consumer costs and savings, for the time-series of costs and benefits using discount rates of 3 and 7 percent for all costs and benefits except for the value of CO_2 reductions. For the latter, DOE used a range of discount rates, as shown in Table I.4. From the present value, DOE then calculated the fixed annual payment over a 30-year period (2017 through 2046) that yields the same present value. The fixed annual payment is the annualized value. Although DOE calculated annualized values, this does not imply that the time-series of cost and benefits from which the annualized values were determined is a steady stream of payments.

** The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the three integrated assessment models, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The values in parentheses represent the SCC in 2015. The SCC time series incorporate an escalation factor. The value for NO_X is the average of the low and high values used in DOE's analysis.

† Total Benefits for both the 3-percent and 7-percent cases are derived using the series corresponding to average SCC with 3-percent discount rate. In the rows labeled "7% plus CO_2 range" and "3% plus CO_2 range," the operating cost and NO_X benefits are calculated using the labeled discount rate, and those values are added to the full range of CO_2 values.

DOE has tentatively concluded that the proposed standards meet the requirements found in EPCA by representing maximum improvement in energy efficiency that is technologically feasible and economically justified, and would result in significant conservation of energy. (42 U.S.C. 6295 (o), 6316(e)) DOE further notes that technologies used to achieve these standard levels are already commercially available for the equipment classes covered by today's proposal. Based on the analyses described above, DOE has tentatively concluded that the benefits of the proposed standards to the Nation (energy savings, positive NPV of customer benefits, customer LCC savings, and emission reductions) would outweigh the burdens (loss of INPV for manufacturers and LCC increases for some customers).

DOE also considered more-stringent and less-stringent energy use levels as trial standard levels (TSLs), and is still considering them in this rulemaking. However, DOE has tentatively concluded that the potential burdens of the more-stringent energy use levels would outweigh the projected benefits. Based on consideration of the public comments DOE receives in response to this notice and related information collected and analyzed during the course of this rulemaking effort, DOE may adopt energy use levels presented in this notice that are either higher or lower than the proposed standards, or some combination of level(s) that incorporate the proposed standards in part.

II. Introduction

The following section briefly discusses the statutory authority underlying today's proposal, as well as some of the relevant historical background related to the establishment of standards for commercial refrigeration equipment.

A. Authority

Title III, Part C of EPCA, Public Law 94–163 (42 U.S.C. 6311–6317, as codified), added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, a program covering certain industrial equipment, which includes the commercial refrigeration equipment that is the focus of this notice.[12] [13] EPCA prescribes energy conservation standards for commercial refrigeration equipment (42 U.S.C. 6313(c)(2)–(4)), and directs DOE to conduct rulemakings to establish new and amended standards for commercial refrigeration equipment. (42 U.S.C. 6313(c)(4)–(6)) (DOE notes that under 42 U.S.C. 6295(m) and 6316(e)(1) the agency must periodically review its already established energy conservation standards for covered equipment. Under this requirement, the next review that DOE would need to conduct must occur no later than 6 years from the issuance of a final rule establishing or amending a standard for covered equipment.)

Pursuant to EPCA, DOE's energy conservation program for covered equipment generally consists of four parts: (1) Testing; (2) labeling; (3) the establishment of Federal energy conservation standards; and (4) certification and enforcement procedures. For commercial refrigeration equipment, DOE is responsible for the entirety of this program. Subject to certain criteria and conditions, DOE is required to develop test procedures to measure the energy efficiency, energy use, or estimated annual operating cost of each type or class of covered equipment. (42 U.S.C. 6314) Manufacturers of covered equipment must use the prescribed DOE test procedure as the basis for certifying to DOE that their equipment complies with the applicable energy conservation standards adopted under EPCA and when making representations to the public regarding the energy use or efficiency of that equipment. (42 U.S.C. 6315(b), 6295(s), and 6316(e)(1)) Similarly, DOE must use these test procedures to determine whether that equipment complies with standards adopted pursuant to EPCA. The DOE test procedure for commercial refrigeration equipment currently appears at title 10 of the Code of Federal Regulations (CFR) part 431, subpart C.

DOE must follow specific statutory criteria for prescribing amended standards for covered equipment. As indicated above, any amended standard for covered equipment must be designed to achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A) and 6316(e)(1)) Furthermore, DOE may not adopt any standard that would not result in the significant conservation of energy. (42 U.S.C. 6295(o)(3) and 6316(e)(1)) DOE also may not prescribe a standard: (1) For certain equipment, including commercial refrigeration equipment, if no test procedure has been established for the product; or (2) if DOE determines by rule that the proposed standard is not technologically feasible or economically justified. (42 U.S.C. 6295(o)(3)(A)–(B) and 6316(e)(1)) In deciding whether a proposed standard is economically justified, DOE must determine whether the benefits of the standard exceed its burdens. (42 U.S.C. 6295(o)(2)(B)(i) and 6316(e)(1)) DOE must make this determination after receiving comments on the proposed standard, and by considering, to the greatest extent practicable, the following seven factors:

1. The economic impact of the standard on manufacturers and consumers of the equipment subject to the standard;
2. The savings in operating costs throughout the estimated average life of the covered equipment in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered equipment that are likely to result from the imposition of the standard;
3. The total projected amount of energy, or as applicable, water, savings likely to result directly from the imposition of the standard;
4. Any lessening of the utility or the performance of the covered equipment likely to result from the imposition of the standard;
5. The impact of any lessening of competition, as determined in writing by the U.S. Attorney General (Attorney General), that is likely to result from the imposition of the standard;
6. The need for national energy and water conservation; and
7. Other factors the Secretary considers relevant.

(42 U.S.C. 6295(o)(2)(B)(i)(I)–(VII) and 6316(e)(1))

[12] For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A–1.

[13] All references to EPCA in this document refer to the statute as amended through the American Energy Manufacturing Technical Corrections Act (AEMTCA), Public Law 112–210 (Dec. 18, 2012).

EPCA, as codified, also contains what is known as an ''anti-backsliding'' provision, which prevents the Secretary from prescribing any amended standard that either increases the maximum allowable energy use or decreases the minimum required energy efficiency of covered equipment. (42 U.S.C. 6295(o)(1) and 6316(e)(1)) Also, the Secretary may not prescribe an amended or new standard if interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States of any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States. (42 U.S.C. 6295(o)(4) and 6316(e)(1))

Further, EPCA, as codified, establishes a rebuttable presumption that a standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure. (*See* 42 U.S.C. 6295(o)(2)(B)(iii) and 6316(e)(1)) Section III.D.2 presents additional discussion about the rebuttable presumption payback period.

Additionally, 42 U.S.C. 6295(q)(1) and 6316(e)(1) specify requirements when promulgating a standard for a type or class of covered equipment that has two or more subcategories that may justify different standard levels. DOE must specify a different standard level than that which applies generally to such type or class of equipment for any group of covered products that has the same function or intended use if DOE determines that products within such group (A) consume a different kind of energy from that consumed by other covered equipment within such type (or class); or (B) have a capacity or other performance-related feature that other equipment within such type (or class) do not have and such feature justifies a higher or lower standard. (42 U.S.C. 6295(q)(1) and 6316(e)(1)) In determining whether a performance-related feature justifies a different standard for a group of equipment, DOE must consider such factors as the utility to the consumer of the feature and other factors DOE deems appropriate. *Id.* Any rule prescribing such a standard must include an explanation of the basis on which such higher or lower level was established. (42 U.S.C. 6295(q)(2) and 6316(e)(1))

Federal energy conservation requirements generally supersede State laws or regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297(a)–(c) and 6316(e))

B. Background

1. Current Standards

The current energy conservation standards for commercial refrigeration equipment were established by two different legislative actions and one DOE final rule. EPCA, as amended by the Energy Policy Act of 2005 (EPACT 2005), established standards for self-contained commercial refrigerators and freezer with solid or transparent doors, self-contained commercial refrigerator-freezers with solid doors, and self-contained commercial refrigerators designed for pull-down applications. (42 U.S.C. 6313(c)(2)–(3)) On January 9, 2009, DOE published a final rule (January 2009 final rule) prescribing standards for commercial refrigeration equipment. 74 FR 1092. Specifically, this final rule completed the first standards rulemaking for commercial refrigeration equipment by establishing standards for equipment types specified in 42 U.S.C. 6313(c)(5), and for which EPCA did not prescribe standards in 42 U.S.C. 6313(c)(2)–(3). These types consisted of commercial ice-cream freezers; self-contained commercial refrigerators, commercial freezers, and commercial refrigerator-freezers without doors; and remote condensing commercial refrigerators, commercial freezers, and commercial refrigerator-freezers. More recently, the American Energy Manufacturing Technical Corrections Act (AEMTCA), Public Law 112–210 (Dec. 18, 2012), amended section 342(c) of EPCA to establish a new standard for self-contained service over counter medium temperature commercial refrigerators (this class is known as SOC.SC.M per DOE's equipment class nomenclature). (42 U.S.C. 6313(c)(4)) As a result, DOE's current energy conservation standards for commercial refrigeration equipment include the following: standards established by EPCA for commercial refrigeration equipment manufactured on or after January 1, 2010; standards established in the January 2009 final rule for commercial refrigeration equipment manufactured on or after January 1, 2012; and standards established by AEMTCA for SOC.SC.M equipment manufactured on or after January 1, 2012.

Table II.1 and Table II.2 present DOE's current energy conservation standards for commercial refrigeration equipment set by EPCA and the January 2009 final rule, respectively. The AEMTCA standard for SOC.SC.M equipment manufactured on or after January 1, 2012 is prescribed as 0.6 × TDA + 1.0. (42 U.S.C. 6313(c)(4)).

TABLE II.1—COMMERCIAL REFRIGERATION EQUIPMENT STANDARDS PRESCRIBED BY EPCA—COMPLIANCE REQUIRED BEGINNING ON JANUARY 1, 2010

Category	Maximum daily energy consumption kWh/day *
Refrigerators with solid doors	0.10 V ** + 2.04.
Refrigerators with transparent doors	0.12 V + 3.34.
Freezers with solid doors	0.40 V + 1.38.
Freezers with transparent doors	0.75 V + 4.10.
Refrigerators/freezers with solid doors	the greater of 0.27 AV † − 0.71 or 0.70.
Self-contained refrigerators with transparent doors designed for pull-down temperature applications.	0.126V + 3.51.

* kilowatt-hours per day.

** Where ''V'' means the chilled or frozen compartment volume in cubic feet as defined in the Association of Home Appliance Manufacturers Standard HRF–1–1979. 10 CFR 431.66.

† Where ''AV'' means that adjusted volume in cubic feet measured in accordance with the Association of Home Appliance Manufacturers Standard HRF–1–1979. 10 CFR 431.66

TABLE II.2—COMMERCIAL REFRIGERATION EQUIPMENT STANDARDS ESTABLISHED IN THE JANUARY 2009 FINAL RULE—COMPLIANCE REQUIRED BEGINNING ON JANUARY 1, 2012

Equipment class *	Standard level ** † kWh/day
VOP.RC.M	0.82 × TDA + 4.07
SVO.RC.M	0.83 × TDA + 3.18
HZO.RC.M	0.35 × TDA + 2.88
VOP.RC.L	2.27 × TDA + 6.85
HZO.RC.L	0.57 × TDA + 6.88
VCT.RC.M	0.22 × TDA + 1.95
VCT.RC.L	0.56 × TDA + 2.61
SOC.RC.M	0.51 × TDA + 0.11
VOP.SC.M	1.74 × TDA + 4.71
SVO.SC.M	1.73 × TDA + 4.59
HZO.SC.M	0.77 × TDA + 5.55
HZO.SC.L	1.92 × TDA + 7.08
VCT.SC.I	0.67 × TDA + 3.29
VCS.SC.I	0.38 × V + 0.88
HCT.SC.I	0.56 × TDA + 0.43
SVO.RC.L	2.27 × TDA + 6.85
VOP.RC.I	2.89 × TDA + 8.7
SVO.RC.I	2.89 × TDA + 8.7
HZO.RC.I	0.72 × TDA + 8.74
VCT.RC.I	0.66 × TDA + 3.05
HCT.RC.M	0.16 × TDA + 0.13
HCT.RC.L	0.34 × TDA + 0.26
HCT.RC.I	0.4 × TDA + 0.31
VCS.RC.M	0.11 × V + 0.26
VCS.RC.L	0.23 × V + 0.54
VCS.RC.I	0.27 × V + 0.63
HCS.RC.M	0.11 × V + 0.26
HCS.RC.L	0.23 × V + 0.54
HCS.RC.I	0.27 × V + 0.63
SOC.RC.L	1.08 × TDA + 0.22
SOC.RC.I	1.26 × TDA + 0.26
VOP.SC.L	4.37 × TDA + 11.82
VOP.SC.I	5.55 × TDA + 15.02
SVO.SC.L	4.34 × TDA + 11.51
SVO.SC.I	5.52 × TDA + 14.63
HZO.SC.I	2.44 × TDA + 9.
SOC.SC.I	1.76 × TDA + 0.36
HCS.SC.I	0.38 × V + 0.88

* Equipment class designations consist of a combination (in sequential order separated by periods) of: (1) an equipment family code (VOP = vertical open, SVO = semivertical open, HZO = horizontal open, VCT = vertical transparent doors, VCS = vertical solid doors, HCT = horizontal transparent doors, HCS = horizontal solid doors, or SOC = service over counter); (2) an operating mode code (RC = remote condensing or SC = self-contained); and (3) a rating temperature code (M = medium temperature (38 °F), L = low temperature (0 °F), or I = ice-cream temperature (-15 °F)). For example, ''VOP.RC.M'' refers to the ''vertical open, remote condensing, medium temperature'' equipment class.

** TDA is the total display area of the case, as measured in ANSI/Air-Conditioning and Refrigeration Institute (ARI) Standard 1200–2006, appendix D.

† V is the volume of the case, as measured in AHAM Standard HRF–1–2004.

2. History of Standards Rulemaking for Commercial Refrigeration Equipment

EPCA, as amended by EPACT 2005, prescribes energy conservation standards for certain self-contained commercial refrigeration equipment designed for holding temperatures [14] (*i.e.,* commercial refrigerators, freezers, and refrigerator-freezers with transparent and solid doors designed for holding temperature applications) and self-contained commercial refrigerators with transparent doors designed for pull-down temperature applications.[15] Compliance with these standards was required as of January 1, 2010. (42 U.S.C. 6313(c)(2)–(3)) DOE published a technical amendment final rule on October 18, 2005 codifying these standards into subpart C of part 431 under title 10 of the Code of Federal Regulations (CFR). 70 FR 60407.

In addition, EPCA requires DOE to set standards for additional commercial refrigeration equipment that is not covered by 42 U.S.C. 6313(c)(2)–(3), namely commercial ice-cream freezers; self-contained commercial refrigerators, freezers, and refrigerator-freezers without doors; and remote condensing commercial refrigerators, freezers, and refrigerator-freezers. (42 U.S.C. 6313(c)(5)) DOE published a final rule establishing these standards on January 9, 2009 (74 FR 1092), and manufacturers must comply with these standards starting on January 1, 2012. (42 U.S.C. 6313(c)(5)(A))

EPCA requires DOE to conduct a subsequent rulemaking to determine whether to amend the standards established under 42 U.S.C. 6313(c), which includes both the standards prescribed by EPACT 2005 and those prescribed by DOE in the January 2009 final rule. (42 U.S.C. 6313(c)(6)) If DOE decides as part of this ongoing rulemaking to amend the current standards, DOE must publish a final rule establishing any such amended standards by January 1, 2013. *Id.*

To satisfy this requirement, DOE initiated the current rulemaking on April 30, 2010 by publishing on its Web site its ''Rulemaking Framework for Commercial Refrigeration Equipment.'' (The Framework document is available at: *www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/cre_framework_04-30-10.pdf.*) DOE also published a notice in the **Federal Register** announcing the availability of the Framework document, as well as a public meeting to discuss the document. The notice also solicited comment on the matters raised in the document. 75 FR 24824 (May 6, 2010). The Framework document described the procedural and analytical approaches that DOE anticipated using to evaluate energy conservation standards for commercial refrigeration equipment, and identified various issues to be resolved in the rulemaking.

DOE held the Framework public meeting on May 18, 2010, at which it: (1) Presented the contents of the Framework document; (2) described the analyses it planned to conduct during the rulemaking; (3) sought comments from interested parties on these subjects; and (4) in general, sought to inform interested parties about, and facilitate their involvement in, the rulemaking. Major issues discussed at the public meeting included: (1) the scope of coverage for the rulemaking; (2) potential updates to the test procedure and appropriate test metrics (being addressed in a concurrent rulemaking); (3) manufacturer and market information, including distribution channels; (4) equipment classes, baseline units,[16] and design options to improve efficiency; (5) life-cycle costs to customer, including installation, maintenance, and repair costs; and (6) any customer subgroups DOE should consider. At the meeting and during the comment period on the Framework document, DOE received many comments that helped it identify and resolve issues pertaining to commercial refrigeration equipment relevant to this rulemaking. These are discussed in subsequent sections of this notice.

DOE then gathered additional information and performed preliminary analyses to help review energy conservation standards for this equipment. This process culminated in DOE's notice of another public meeting to discuss and receive comments regarding the tools and methods DOE used in performing its preliminary analysis, as well as the analyses results. 76 FR 17573 (March 30, 2011) (the March 2011 notice). DOE also invited written comments on these subjects and announced the availability on its Web site of a preliminary analysis technical support document (preliminary analysis TSD). *Id.* (The preliminary analysis TSD is available at: *www.regulations.gov/#!documentDetail;D=EERE-2010-BT-STD-0003-0030.*) Finally, DOE sought comments concerning other relevant issues that could affect amended energy

[14] EPCA defines the term ''holding temperature application'' as a use of commercial refrigeration equipment other than a pull-down temperature application, except a blast chiller or freezer. (42 U.S.C. 6311(9)(B))

[15] EPCA defines the term ''pull-down temperature application'' as a commercial refrigerator with doors that, when fully loaded with 12 ounce beverage cans at 90 °F, can cool those beverages to an average stable temperature of 38 °F in 12 hours or less. (42 U.S.C. 6311(9)(D))

[16] Baseline units consist of units possessing features and levels of efficiency consistent with the least-efficient equipment currently available and widely sold on the market.

conservation standards for commercial refrigeration equipment, or that DOE should address in this NOPR. 76 FR 17575 (March 30, 2011).

The preliminary analysis TSD provided an overview of DOE's review of the standards for commercial refrigeration equipment, discussed the comments DOE received in response to the Framework document, and addressed issues including the scope of coverage of the rulemaking. The document also described the analytical framework that DOE used (and continues to use) in considering amended standards for commercial refrigeration equipment, including a description of the methodology, the analytical tools, and the relationships between the various analyses that are part of this rulemaking. Additionally, the preliminary analysis TSD presented in detail each analysis that DOE had performed for this equipment up to that point, including descriptions of inputs, sources, methodologies, and results. These analyses were as follows:

- A *market and technology assessment* addressed the scope of this rulemaking, identified existing and potential new equipment classes for commercial refrigeration equipment, characterized the markets for this equipment, and reviewed techniques and approaches for improving its efficiency;
- A *screening analysis* reviewed technology options to improve the efficiency of commercial refrigeration equipment, and weighed these options against DOE's four prescribed screening criteria;
- An *engineering analysis* estimated the manufacturer selling prices (MSPs) associated with more energy efficient commercial refrigeration equipment;
- An *energy use analysis* estimated the annual energy use of commercial refrigeration equipment;
- A *markups analysis* converted estimated MSPs derived from the engineering analysis to customer purchase prices;
- A *life-cycle cost analysis* calculated, for individual customers, the discounted savings in operating costs throughout the estimated average life of commercial refrigeration equipment, compared to any increase in installed costs likely to result directly from the imposition of a given standard;
- A *payback period analysis* estimated the amount of time it would take customers to recover the higher purchase price of more energy efficient equipment through lower operating costs;
- A *shipments analysis* estimated shipments of commercial refrigeration equipment over the time period examined in the analysis;
- A *national impact analysis* (NIA) assessed the national energy savings (NES), and the national NPV of total customer costs and savings, expected to result from specific, potential energy conservation standards for commercial refrigeration equipment; and
- A *preliminary manufacturer impact analysis* (MIA) took the initial steps in evaluating the potential effects on manufacturers of amended efficiency standards.

The public meeting announced in the March 2011 notice took place on April 19, 2011 (April 2011 preliminary analysis public meeting). At the April 2011 preliminary analysis public meeting, DOE presented the methodologies and results of the analyses set forth in the preliminary analysis TSD. Interested parties provided comments on the following issues: (1) Equipment classes; (2) technology options; (3) energy modeling; (4) installation, maintenance, and repair costs; (5) markups and distributions chains; (6) commercial refrigeration equipment shipments; and (7) test procedures. The comments received since publication of the March 2011 notice, including those received at the April 2011 preliminary analysis public meeting, have contributed to DOE's proposed resolution of the issues in this rulemaking as they pertain to commercial refrigeration equipment. This NOPR responds to the issues raised by the commenters.

In December 2012, AEMTCA established new standards for SOC.SC.M equipment with a compliance date of January 1, 2012. (42 U.S.C. 6313(c)(4)) The SOC.SC.M equipment had previously been classified under the category self-contained commercial refrigerators with transparent doors for which standards were established by EPACT 2005. (42 U.S.C. 6313(c)(2)) The standard established by AEMTCA for SOC.SC.M equipment reduces the stringency of the standard applicable to this equipment.

AEMTCA also directs DOE to determine, within three years of enactment of the new SOC.SC.M standard, whether this standard should be amended. (42 U.S.C. 6313(c)(4)(B)(i)) If DOE determines that the standard should be amended, then DOE must issue a final rule establishing an amended standard within this same three-year period. (42 U.S.C. 6313(c)(4)(B)(ii))

III. General Discussion

A. Test Procedures and Normalization Metrics

1. Test Procedures

On December 8, 2006, DOE published a final rule in which it adopted American National Standards Institute (ANSI)/Air-Conditioning and Refrigeration Institute (ARI) Standard 1200–2006, ''Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets,'' as the DOE test procedure for this equipment. 71 FR 71340, 71369–70. ANSI/ARI Standard 1200–2006 requires performance tests to be conducted according to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 72–2005, ''Method of Testing Commercial Refrigerators and Freezers.'' The standard also contains rating temperature specifications of 38 °F (±2 °F) for commercial refrigerators and refrigerator compartments, 0 °F (±2 °F) for commercial freezers and freezer compartments, and −5 °F (±2 °F) for commercial ice-cream freezers. During the 2006 test procedure rulemaking, DOE determined that testing at a −15 °F (±2 °F) rating temperature was more representative of the actual energy consumption of commercial freezers specifically designed for ice-cream application. 71 FR 71357 (Dec. 8, 2006). Therefore, in the test procedure final rule, DOE adopted a −15 °F (±2 °F) rating temperature for commercial ice-cream freezers, rather than the −5 °F (±2 °F) prescribed in the ANSI/ARI Standard 1200–2006. In addition, DOE adopted ANSI/Association of Home Appliance Manufacturers (AHAM) Standard HRF–1–2004, ''Energy, Performance, and Capacity of Household Refrigerators, Refrigerator-Freezers, and Freezers,'' for determining compartment volumes for this equipment. 71 FR 71369–70 (Dec. 8, 2006).

On February 21, 2012, DOE published a test procedure final rule (2012 test procedure final rule) in which it adopted several amendments to the DOE test procedure. This included an amendment to incorporate by reference ANSI/Air-Conditioning, Heating, and Refrigeration Institute (AHRI) Standard 1200–2010, ''Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets,'' as the DOE test procedure for this equipment. 77 FR 10292, 10314 (Feb. 21, 2012). The 2012 test procedure final rule also included an amendment to incorporate by reference the updated ANSI/AHAM Standard HRF–1–2008,

''Energy, Performance, and Capacity of Household Refrigerators, Refrigerator-Freezers, and Freezers,'' for determining compartment volumes for this equipment.

In addition, the 2012 test procedure final rule included several amendments designed to address certain energy efficiency features that were not accounted for by the previous DOE test procedure, including provisions for measuring the impact of night curtains [17] and lighting occupancy sensors and scheduled controls. 77 FR 10296–98 (Feb. 21, 2012). In the 2012 test procedure final rule, DOE also adopted amendments to allow testing of commercial refrigeration equipment at temperatures other than one of the three rating temperatures previously specified in the test procedure. Specifically, the 2012 test procedure final rule allows testing of commercial refrigeration equipment at its lowest application product temperature, for equipment that cannot be tested at the prescribed rating temperature. The 2012 test procedure final rule also allows manufacturers to test and certify equipment at the more-stringent temperatures and ambient conditions required by NSF for food safety testing. 77 FR 10305 (Feb. 21, 2012). (The NSF was founded in 1944 as the National Sanitation Foundation, and is now referred to simply as NSF.)

The test procedure amendments established in the 2012 test procedure final rule are required to be used in conjunction with any amended standards promulgated as a result of this energy conservation standard rulemaking. As such, use of the amended test procedure to show compliance with DOE energy conservation standards or make representations with respect to energy consumption of commercial refrigeration equipment is required on the compliance date of any revised energy conservation standards established as part of this rulemaking. 77 FR 10308 (Feb. 21, 2012).

DOE has initiated a test procedure rulemaking for commercial refrigeration equipment to address many issues raised by stakeholders since the publication of the 2012 test procedure final rule. This rulemaking will address the following issues:

- A number of new definitions related to commercial refrigeration equipment,
- A description of the proper configuration and use of energy management systems,
- Clarifications on the use of calculation methods, appropriate reporting requirements, and determination of the lowest application product temperature,
- Incorporation of Interpretations 1 through 5 to AHRI 1200–2010, and
- Updates and clarifications regarding the compliance dates of test procedure amendments adopted in the 2012 test procedure final rule by reorganizing the test procedure in two different appendices.

The issues that will be addressed in the test procedure rulemaking are consistent with the analysis in this NOPR.

2. Normalization Metrics

Both the January 2009 final rule and EPACT 2005 contain energy conservation standards for respective covered types of commercial refrigeration equipment, expressed in the form of equations developed as a function of unit size. This use of normalization metrics allows for a single standard-level equation developed for an equipment class to apply to a broad range of equipment sizes offered within that class by manufacturers. In the aforementioned commercial refrigeration equipment standards, the two normalization metrics used are refrigerated compartment volume, as determined using AHAM HRF–1–2004, and TDA, as determined using ANSI/ARI 1200–2006. In particular, the EPACT 2005 standards utilize volume as the normalization metric for all equipment types, with the exception of refrigerator-freezers with solid doors, for which it specifies adjusted volume. (42 U.S.C. 6313(c)(2)) The January 2009 final rule, meanwhile, utilized TDA as the normalization metric for all equipment with display capacity while specifying volume as the metric for solid-door (VCS and HCS) equipment. 74 FR 1093 (Jan. 9, 2009).

At the May 2010 Framework public meeting, interested parties raised several questions regarding the potential normalization metrics that could be used in amended standards. DOE also received stakeholder feedback pertaining to this issue following the publication of the Framework document. In the preliminary analysis, DOE suggested that it would consider retaining the normalization metrics in this rulemaking for the respective classes to which they were applied in EPCA (42 U.S.C. 6313(c)(2)–(3)) and the January 2009 final rule. 74 FR 1093 (Jan. 9, 2009). In chapter 2 of the preliminary analysis TSD, DOE presented its rationale for the continued use of TDA for equipment with display areas addressed in the January 2009 final rule and the continued use of volume as the metric for solid-door remote condensing equipment and ice-cream freezers, as well as for the equipment covered by EPACT 2005 standards. DOE did not receive any information or data while conducting the NOPR analyses that would alter this position, and thus DOE proposes continued use of the existing normalization metrics in today's notice.

B. Technological Feasibility

1. General

In each standards rulemaking, DOE conducts a screening analysis, which is based on information that the Department has gathered on all current technology options and prototype designs that could improve the efficiency of the products or equipment that are the subject of the rulemaking. As the first step in such analysis, DOE develops a list of design options for consideration, in consultation with manufacturers, design engineers, and other interested parties. DOE then determines which of these options for improving efficiency are technologically feasible. DOE considers a design option to be technologically feasible if it is used by the relevant industry or if a working prototype has been developed. Technologies incorporated in commercially available equipment or in working prototypes will be considered technologically feasible. 10 CFR 430, subpart C, appendix A, section 4(a)(4)(i) Although DOE considers technologies that are proprietary, it will not consider efficiency levels that can only be reached through the use of proprietary technologies (*i.e.,* a unique pathway), which could allow a single manufacturer to monopolize the market.

Once DOE has determined that particular design options are technologically feasible, it further evaluates each of these design options in light of the following additional screening criteria: (1) Practicability to manufacture, install, or service; (2) adverse impacts on product utility or availability; and (3) adverse impacts on health or safety. 10 CFR part 430, subpart C, appendix A, section 4(a)(4)(ii)–(iv) Chapter 4 of the NOPR TSD discusses the results of the screening analyses for commercial refrigeration equipment. Specifically, it presents the designs DOE considered, those it screened out, and those that are the bases for the TSLs considered in this rulemaking.

[17] Night curtains are devices made of an insulating material, typically insulated aluminum fabric, designed to be pulled down over the open front of the case to decrease infiltration and heat transfer into the case when the merchandizing establishment is closed.

2. Maximum Technologically Feasible Levels

When DOE proposes to adopt (or not adopt) an amended or new energy conservation standard for a type or class of covered equipment such as commercial refrigeration equipment, it determines the maximum improvement in energy efficiency that is technologically feasible for such equipment. (*See* 42 U.S.C. 6295(p)(1) and 6316(e)(1)) Accordingly, in the preliminary analysis, DOE determined the maximum technologically feasible (''max-tech'') improvements in energy efficiency for commercial refrigeration equipment in the engineering analysis using the design parameters that passed the screening analysis.

As indicated previously, whether efficiency levels exist or can be achieved in commonly used equipment is not relevant to whether they are considered max-tech levels. DOE considers technologies to be technologically feasible if they are incorporated in any currently available equipment or working prototypes. Hence, a max-tech level results from the combination of design options predicted to result in the highest efficiency level possible for an equipment class, with such design options consisting of technologies already incorporated in commercial equipment or working prototypes. DOE notes that it reevaluated the efficiency levels, including the max-tech levels, when it updated its results for this NOPR. See chapter 5 of the NOPR TSD for the results of the analyses, and a list of technologies included in max-tech equipment. Table III.1 shows the max-tech levels determined in the engineering analysis for commercial refrigeration equipment.

TABLE III.1—''MAX-TECH'' LEVELS FOR COMMERCIAL REFRIGERATION EQUIPMENT PRIMARY CLASSES

Equipment class	''Max-Tech'' level kWh/day
VCT.RC.L	0.41 × TDA + 1.93
VOP.RC.M	0.6 × TDA + 2.99
SVO.RC.M	0.62 × TDA + 2.38
HZO.RC.L	0.55 × TDA + 6.7
HZO.RC.M	0.34 × TDA + 2.83
VCT.RC.M	0.07 × TDA + 0.66
VOP.RC.L	2.07 × TDA + 6.26
SOC.RC.M	0.39 × TDA + 0.08
VOP.SC.M	1.5 × TDA + 4.06
SVO.SC.M	1.5 × TDA + 3.97
HZO.SC.L	1.91 × TDA + 7.03
HZO.SC.M	0.74 × TDA + 5.35
HCT.SC.I	0.36 × TDA + 0.28
VCT.SC.I	0.5 × TDA + 2.44
VCS.SC.I	0.33 × V + 0.76
VCT.SC.M	0.03 × V + 0.97

TABLE III.1—''MAX-TECH'' LEVELS FOR COMMERCIAL REFRIGERATION EQUIPMENT PRIMARY CLASSES—Continued

Equipment class	''Max-Tech'' level kWh/day
VCT.SC.L	0.21 × V + 1.16
VCS.SC.M	0.02 × V + 0.41
VCS.SC.L	0.11 × V + 0.38
HCT.SC.M	0.01 × V + 0.38
HCT.SC.L	0.08 × V + 0.45
HCS.SC.M	0.01 × V + 0.18
HCS.SC.L	0.07 × V + 0.24
PD.SC.M	0.03 × V + 0.72
SOC.SC.M	0.32 × TDA + 0.53

C. Energy Savings

1. Determination of Savings

For each TSL, DOE projected energy savings from the products that are the subjects of this rulemaking, purchased during the 30-year period that begins in the year of compliance with amended standards (2017–2046). The savings are measured over the entire lifetime of products purchased in the 30-year period.[18] DOE used the NIA model to estimate the NES for equipment purchased over the period 2017–2046. The model forecasts total energy use over the analysis period for each representative equipment class at efficiency levels set by each of the five considered TSLs. DOE then compares the energy use at each TSL to the base-case energy use to obtain the NES. The NIA model is described in section IV.I of this notice and in chapter 10 of the NOPR TSD.

DOE used its national impact analysis (NIA) spreadsheet model to estimate energy savings from amended standards for the products that are the subject of this rulemaking. The NIA spreadsheet model (described in section IV.I of this notice) calculates energy savings in site energy, which is the energy directly consumed by products at the locations where they are used. For electricity, DOE reports national energy savings in terms of the savings in the energy that is used to generate and transmit the site electricity. To calculate this quantity, DOE derives annual conversion factors from the model used to prepare the Energy Information Administration's (EIA) *Annual Energy Outlook* (*AEO*).

[18] In the past, DOE presented energy savings results for only the 30-year period that begins in the year of compliance. In the calculation of economic impacts, however, DOE considered operating cost savings measured over the entire lifetime of products purchased during the 30-year period. DOE has chosen to modify its presentation of national energy savings to be consistent with the approach used for its national economic analysis.

DOE has begun to also estimate full-fuel-cycle (FFC) energy savings. 76 FR 51282 (Aug. 18, 2011), as amended at 77 FR 49701 (August 17, 2012). The FFC metric includes the energy consumed in extracting, processing, and transporting primary fuels, and thus presents a more complete picture of the impacts of energy efficiency standards. DOE's approach is based on calculation of an FFC multiplier for each of the energy types used by covered products.

2. Significance of Savings

EPCA prohibits DOE from adopting a standard that would not result in significant additional energy savings. (42 U.S.C. 6295(o)(3)(B),(v) and 6316(e)(1)) While the term ''significant'' is not defined in EPCA, the U.S. Court of Appeals for the District of Columbia in *Natural Resources Defense Council* v. *Herrington,* 768 F.2d 1355, 1373 (D.C. Cir. 1985), indicated that Congress intended significant energy savings to be savings that were not ''genuinely trivial.'' The estimated energy savings in the 30-year analysis period for the TSLs considered in this rulemaking range from 0.236 to 1.278 quads (see section V.B.2 for additional details); therefore, DOE considers them significant within the meaning of section 325 of the Act.

D. Economic Justification

1. Specific Criteria

As discussed in section II.A, EPCA provides seven factors to be evaluated in determining whether a potential energy conservation standard is economically justified. (42 U.S.C. 6295(o)(2)(B)(i) and 6316(e)(1)) The following sections generally discuss how DOE is addressing each of those seven factors in this rulemaking. For further details and the results of DOE's analyses pertaining to economic justification, see sections IV and V of today's notice.

a. Economic Impact on Manufacturers and Commercial Customers

In determining the impacts of a potential new or amended energy conservation standard on manufacturers, DOE first determines its quantitative impacts using an annual cash flow approach. This includes both a short-term assessment (based on the cost and capital requirements associated with new or amended standards during the period between the announcement of a regulation and the compliance date of the regulation) and a long-term assessment (based on the costs and marginal impacts over the 30-year analysis period). The impacts analyzed include INPV (which values the industry based on expected future cash

flows), cash flows by year, changes in revenue and income, and other measures of impact, as appropriate. Second, DOE analyzes and reports the potential impacts on different types of manufacturers, paying particular attention to impacts on small manufacturers. Third, DOE considers the impact of new or amended standards on domestic manufacturer employment and manufacturing capacity, as well as the potential for new or amended standards to result in plant closures and loss of capital investment. Finally, DOE takes into account cumulative impacts of other DOE regulations and non-DOE regulatory requirements on manufacturers.

For individual customers, measures of economic impact include the changes in LCC and the PBP associated with new or amended standards. The LCC, which is also separately specified as one of the seven factors to be considered in determining the economic justification for a new or amended standard (42 U.S.C. 6295(o)(2)(B)(i)(II), and 6316(e)(1)), is discussed in the following section. For customers in the aggregate, DOE also calculates the NPV from a national perspective of the economic impacts on customers over the analysis period used in a particular rulemaking. For a description of the methodology used for assessing the economic impact on customers, see sections IV.H and IV.I; for results, see sections V.B.1 and V.B.2 of this notice. Additionally, chapters 8 and 10 and the associated appendices of the NOPR TSD contain a detailed description of the methodology and discussion of the results. For a description of the methodology used to assess the economic impact on manufacturers, see section IV.K; for results, see section V.B.2 of this notice. Additionally, chapter 13 of the NOPR TSD contains a detailed description of the methodology and discussion of the results.

b. Life-Cycle Costs

The LCC is the sum of the purchase price of equipment (including the cost of its installation) and the operating costs (including energy and maintenance and repair costs) discounted over the lifetime of the equipment. The LCC savings for the considered efficiency levels are calculated relative to a base-case scenario, which reflects likely trends in the absence of new or amended standards. DOE carried out the LCC analysis for this rulemaking by analyzing the LCC impacts on those customers who purchase the equipment in the year in which compliance with the new standard is required. To account for uncertainty and variability in specific inputs, such as equipment lifetime and discount rate, DOE uses a range of values, each with its own probability of selection. In addition to identifying distribution of customer impacts, DOE evaluates the LCC impacts of potential standards on identifiable subgroups of customers who may be disproportionately affected by a new national standard. For the results of DOE's analyses related to the LCC, see section V.B.1 of this notice and chapter 8 of the NOPR TSD; for LCC impacts on identifiable subgroups, see section V.B.1 of this notice and chapter 11 of the NOPR TSD.

c. Energy Savings

While significant conservation of energy is a statutory requirement for imposing an energy conservation standard, EPCA also requires DOE, in determining the economic justification of a standard, to consider the total projected energy savings that are expected to result directly from the standard. (42 U.S.C. 6295(o)(2)(B)(i)(III) and 6316(e)(1)) DOE uses NIA spreadsheet results in its consideration of total projected savings. For the results of DOE's analyses related to the potential energy savings, see section VI.B.3 of this notice and chapter 10 of the NOPR TSD.

d. Lessening of Utility or Performance of Equipment

In establishing classes of equipment, and in evaluating design options and the impact of potential standard levels, DOE seeks to develop standards that would not lessen the utility or performance of the equipment under consideration. None of the TSLs presented in today's NOPR would reduce the utility or performance of the equipment considered in the rulemaking. (42 U.S.C. 6295(o)(2)(B)(i)(IV) and 6316(e)(1)) During the screening analysis, DOE eliminated from consideration any technology that would adversely impact customer utility. For the results of DOE's analyses related to the potential impact of amended standards on equipment utility and performance, see section IV.D of this notice and chapter 4 of the NOPR TSD.

e. Impact of Any Lessening of Competition

EPCA directs DOE to consider the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of a standard. (42 U.S.C. 6295(o)(2)(B)(i)(V) Specifically, it directs the Attorney General to determine in writing the impact, if any, of any lessening of competition likely to result from a proposed standard and to transmit such determination to the Secretary, not later than 60 days after the publication of a proposed rule, together with an analysis of the nature and extent of such impact. (42 U.S.C. 6295(o)(2)B(ii) and 6316(e)(1)) For the results of DOE's analysis related to lessening of competition, see section V.B.5 of this notice.

f. Need of the Nation To Conserve Energy

Another factor that DOE must consider in determining whether a new or amended standard is economically justified is the need for national energy and water conservation. (42 U.S.C. 6295(o)(2)(B)(i)(VI) and 6316(e)(1)) The energy savings from new or amended standards are likely to provide improvements to the security and reliability of the Nation's energy system. Reductions in the demand for electricity may also result in reduced costs for maintaining the reliability of the Nation's electricity system. DOE conducts a utility impact analysis to estimate how new or amended standards may affect the Nation's needed power generation capacity.

Energy savings from amended standards for commercial refrigeration equipment are also likely to result in environmental benefits in the form of reduced emissions of air pollutants and GHGs associated with energy production (*i.e.,* from power plants). For a discussion of the results of the analyses relating to the potential environmental benefits of the amended standards, see sections IV.N, IV.O and V.B.6 of this notice. DOE reports the expected environmental effects from the proposed standards, as well as from each TSL it considered for commercial refrigeration equipment, in the emissions analysis contained in chapter 13 of the NOPR TSD. DOE also reports estimates of the economic value of emissions reductions resulting from the considered TSLs in chapter 14 of the NOPR TSD.

g. Other Factors

EPCA allows the Secretary, in determining whether a new or amended standard is economically justified, to consider any other factors that the Secretary deems to be relevant. (42 U.S.C. 6295(o)(2)(B)(i)(VII) and 6316(e)(1)) In developing the TSLs set forth in this notice, DOE has also considered the comments submitted by interested parties. For the results of

DOE's analyses related to other factors, see section V.B.7 of this notice.

2. Rebuttable Presumption

As set forth in 42 U.S.C. 6295(o)(2)(B)(iii) and 6316(e)(1), EPCA provides for a rebuttable presumption that an energy conservation standard is economically justified if the additional cost to the customer of equipment that meets the new or amended standard level is less than three times the value of the first-year energy (and, as applicable, water) savings resulting from the standard, as calculated under the applicable DOE test procedure. DOE's LCC and PBP analyses generate values that calculate the PBP for customers of potential new and amended energy conservation standards. These analyses include, but are not limited to, the 3-year PBP contemplated under the rebuttable presumption test. However, DOE routinely conducts a full economic analysis that considers the full range of impacts to the customer, manufacturer, Nation, and environment, as required under 42 U.S.C. 6295(o)(2)(B)(i) and 6316(e)(1). The results of these analyses serve as the basis for DOE to evaluate the economic justification for a potential standard level definitively (thereby supporting or rebutting the results of any preliminary determination of economic justification). The rebuttable presumption payback calculation is discussed in section IV.H.12 of this notice and chapter 8 of the NOPR TSD.

IV. Methodology and Discussion of Comments

A. General Rulemaking Issues

During the April 2011 preliminary analysis public meeting and in subsequent written comments, stakeholders provided input regarding general issues pertinent to the rulemaking, such as issues of scope of coverage and DOE's authority in setting standards. These issues are discussed in this section.

1. Statutory Authority

In the preliminary analysis, DOE stated its position that EPCA prevents the setting of both energy performance standards and prescriptive design requirements (see chapter 2 of the preliminary analysis TSD [19]). DOE also stated its intent to amend the energy performance standards for commercial refrigeration equipment, and not to set prescriptive design requirements at this time (see chapter 2 of the preliminary analysis TSD). In a written comment, Earthjustice opined that DOE misread EPCA in suggesting that DOE does not have authority to establish design requirements for commercial refrigeration equipment. More specifically, Earthjustice asserted that DOE's interpretation of 42 U.S.C. 6311(18) ignores that EPCA uses the plural form in compelling this rulemaking to amend energy conservation ''standards.'' Further, Earthjustice stated, even if DOE were only authorized to promulgate a single standard or single design requirement in any one rulemaking, nothing in EPCA indicates that prior establishment of performance standards would foreclose the issuance of design requirements in a subsequent rulemaking, provided that those design requirements achieved the maximum technologically feasible and economically justified energy savings. (Earthjustice, No. 35 at pp. 4–5) [20]

EPCA defines the phrase ''energy conservation standard'' as a performance standard that prescribes a minimum level of energy efficiency or a maximum quantity of energy use for a product or as a design requirement for a product. (42 U.S.C. 6311(18)(A)–(B)) Therefore, based on a clear reading of EPCA, DOE must use either a performance standard or a design (prescriptive) requirement in prescribing energy conservation standards. It has been DOE's longstanding interpretation that the term ''standard'' means either a performance standard or a design requirement, and that the plural term ''standards'' refers to the setting of a collective group of standards across all covered equipment or product classes. Thus, it is not DOE's interpretation of EPCA that the statute's use of the plural term ''standards,'' in referring to a collective group of equipment classes, grants DOE the authority to set both prescriptive and performance standards for a given class within that group. In the case of commercial refrigeration equipment, all of the equipment that is the subject of this rulemaking is currently covered either by a statutorily mandated performance standard or by a performance standard set by DOE in the January 2009 final rule. (42 U.S.C. 6313(c)(1)–(4)); 74 FR 1093 (Jan. 9, 2009). In this rulemaking, DOE is considering amendments to these performance standards for commercial refrigeration equipment, and is therefore not considering design requirements at this time.

2. January 2009 Final Rule Equipment

At the April 2011 preliminary analysis public meeting, AHRI stated that in 2005 when the legislation that was to become EPACT 2005 was drafted, the drafters' intent was not for DOE to start a rulemaking on remote cases in 2010. According to AHRI, the drafters' intent was that DOE start the rulemaking on self-contained units. AHRI pointed out that manufacturers would have to redesign products (those covered by the 2009 DOE final rule) twice in a 4-year period, first to meet the 2009 DOE standards in 2012, and then again to meet the 2013 standards in 2016. AHRI asked DOE to take that into account, a situation AHRI described as unprecedented. (AHRI, Public Meeting Transcript, No. 31 at pp. 204–05) AHRI elaborated on this situation in its written comment, expressing its belief that it is illogical that DOE decided to analyze equipment types for which standards exist, but with which manufacturers are not yet required to comply. AHRI stated that the intent of Congress was never to require DOE to start a rulemaking on this equipment, and questioned how DOE could possibly assess whether amended standards are appropriate before the January 2009 final rule standards reach the stage where manufacturers must comply. AHRI urged DOE to focus on self-contained refrigerators and freezers with doors in this rulemaking. (AHRI, No. 43 at pp. 1–2)

Similarly, Zero Zone expressed disappointment with the fact that the current rulemaking was initiated before the standards compliance date of January 1, 2012 specified in the January 2009 final rule. Zero Zone went on to state that waiting until after this compliance date to initiate a rulemaking would have allowed DOE to determine the accuracy of its models and the impacts on industry. (Zero Zone, No. 37 at p. 1)

The EPACT 2005 amendments to EPCA require DOE to conduct a rulemaking to determine whether to amend the standards for commercial refrigeration equipment established under 42 U.S.C. 6313(c), which covers both the standards prescribed by EPACT

[19] U.S. Department of Energy—Office of Energy Efficiency and Renewable Energy. Preliminary Technical Support Document (TSD): Energy Conservation Program for Certain Commercial and Industrial Equipment: Commercial Refrigeration Equipment. Chapter 2. Analytical Framework, Comments from Interested Parties, and DOE Responses. March 2011. Washington, DC *www.regulations.gov/#!documentDetail;D=EERE-2010-BT-STD-0003-0030.*

[20] A notation in this form provides a reference for information that is in the docket of DOE's rulemaking to develop energy conservation standards for commercial refrigeration equipment (Docket No. EERE–2010–BT–STD–0003), which is maintained at *www.regulations.gov.* This notation indicates that the statement preceding the reference is document number 35 in the docket for the commercial refrigeration equipment energy conservation standards rulemaking, and appears at pages 4–5 of that document.

2005 and the standards set by DOE in the January 2009 final rule. (42 U.S.C. 6313(c)(6)) If DOE determines that these standards should be amended, DOE must publish a final rule establishing such amended standards by January 1, 2013. *Id.* Regarding AHRI's comment, DOE is thus compelled by statute to conduct this rulemaking with a scope of coverage including the equipment specified in both EPACT 2005 and in the January 2009 final rule. In response to Zero Zone's comments concerning the burden imposed by amended standards, DOE has considered manufacturer impacts in the MIA, as required by 42 U.S.C. 6295(o)(2)(B)(i)(I) and 6316(e)(1). DOE has also used its manufacturer interviews as a forum to discuss and receive feedback on the inputs to and accuracy of its models.

3. Normalization Metrics

In chapter 2 of the preliminary analysis TSD, DOE stated its proposal to retain the current normalization metrics for all equipment classes and requested comment from interested parties. Traulsen agreed with DOE's tentative plan to use cabinet volume as the normalization metric for ''appropriate'' equipment, but noted that there are other (unspecified) design factors that need to be considered. (Traulsen, No. 45 at p. 2) Zero Zone stated that evaluation of the normalization metrics should take place after the January 2009 final rule compliance date. (Zero Zone, No. 37 at p. 4)

During the NOPR analyses, DOE took into account stakeholder input when reviewing normalization metrics for covered equipment. DOE agrees with Traulsen that volume is the appropriate normalization metric for most self-contained equipment classes. With respect to the comment by Zero Zone, the timing of this proceeding made it difficult for significant amounts of data on sales and other factors to be acquired after the January 2009 final rule compliance date of January 1, 2012. DOE took into account information regarding the size and composition of the commercial refrigeration equipment market obtained through manufacturer interviews, market research publications, and other sources during the NOPR stage.

4. Treatment of Blast Chillers, Thawing Cabinets, Prep Tables, Salad Bars, and Buffet Tables

In its written comment, Traulsen expressed concern that DOE may inadvertently include equipment such as prep tables, blast chillers, and thawing cabinets in standards it develops. (Traulsen, No. 45 at p. 1) During the ongoing rulemaking, DOE also received several inquiries from interested parties regarding the coverage, under current or amended energy conservation standards, of salad bars, buffet tables, and other refrigerated holding and serving equipment.

EPCA, in its definition of ''commercial refrigerator, freezer, and refrigerator-freezer,'' states that such equipment must display or store merchandise or other perishable materials horizontally, vertically, or semi-vertically, and must be designed for pull-down temperature applications or holding temperature applications, among other factors. (42 U.S.C. 6311(9)(A)) Moreover, 42 U.S.C. 6311(9) defines ''holding temperature application'' as specifically omitting blast chillers or freezers, and specifies that ''pull-down temperature application'' refers solely to equipment designed to cool 12 ounce beverage cans from 90 to 38 °F in 12 hours or less. Thus, blast chillers and thawing cabinets do not meet the relevant statutory definition, and will not be addressed in this rulemaking.

With regard to prep tables with open bins or trays, salad bars, and buffet tables, DOE does not currently have energy conservation standards that cover this equipment. DOE notes that some of this equipment is designed for the temporary placement of food during preparation or service, rather than storage or retailing, and may operate very differently from the commercial refrigeration equipment considered in this rulemaking. Moreover, DOE's current test procedure does not include provisions for testing this type of equipment. For example, some types of foodservice equipment (such as salad bars, buffet tables, and prep tables) do not have doors, drawers, or openings typical of conventional commercial refrigeration equipment. While DOE has the authority to set standards for other types of commercial refrigeration equipment (42 U.S.C. 6313(c)(5)(B)), this rulemaking is not currently considering standards for equipment types other than those covered by DOE's existing standards. 10 CFR 431.66

5. Dedicated Remote Condensing Units

Several stakeholders inquired whether equipment consisting of a refrigerated case served by a single, dedicated remote condensing unit that serves only that unit would be covered under DOE's proposed standards. True Manufacturing (True) stated that smaller units are more likely to have such a condensing unit, and that continuous cases [21] are almost exclusively rack condensing systems [22] due to the energy savings gained in the long term by rejecting heat outside of the building. (True, Public Meeting Transcript, No. 31 at pp. 268–69) Southern Store Fixtures stated that it is very difficult for the company to predict whether a given case that it builds will ultimately be connected to an individual condensing unit or to a compressor rack. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 268) Zero Zone commented that 20 to 40 percent of the units it sells are served by dedicated condensing units, and that the remainder are served by racks, noting that businesses such as convenience stores and dollar stores use dedicated condensing units in the interest of simplicity. (Zero Zone, Public Meeting Transcript, No. 31 at p. 269) In its written comment, Earthjustice referenced Zero Zone's statement that 20 to 40 percent of remote condensing commercial refrigeration equipment is served by dedicated remote condensing units, and stated that because there is a significant market share for such equipment, DOE should explore standards that address the performance of such units. (Earthjustice, No. 35 at p. 4)

DOE understands that some stakeholders are concerned that shipments of equipment utilizing dedicated remote condensing units may comprise a nontrivial portion of the market. However, the DOE test procedure does not contain a methodology for testing such condensing units. DOE anticipates working with the industry in the future to develop testing methodologies that can be used in future commercial refrigeration equipment rulemakings. For this current rulemaking, display cases connected to dedicated remote condensers will be treated like any other piece of remote condensing equipment under the DOE test procedure, with the energy of the remote condensing unit calculated as specified in AHRI 1200 and added to the measured energy consumption of the display case. As there is no industry-accepted method of test for dedicated remote condensers, DOE proposes to continue to treat

[21] In most supermarket and large food retail settings, multiple display cases from a manufacturer are attached together into a single continuous lineup without internal partitions; these are referred to as ''continuous cases.''

[22] Rack condensing systems utilize a ''rack'' of multiple compressors and a condenser that serves to deliver liquid refrigerant to a number of different pieces of equipment served by the single rack. For example, most supermarkets have one or more compressor racks to serve their display cases, walk-in coolers and freezers, and other equipment.

equipment utilizing this condensing unit configuration in the same manner as all other display cases connected to remote condensers.

Also, as Southern Store Fixtures noted, it is often difficult or impossible for the display case manufacturer to know ahead of time whether a given case will be attached to a dedicated remote condensing unit or a remote condensing rack by an end user. In some cases, the dedicated condensing unit is produced by a separate manufacturer and purchased independently. As Zero Zone stated, the majority of remote condensing cases are still sold to be connected to a remote condensing rack system that serves multiple pieces of equipment. Thus, DOE believes that comparing remote condensing cases based on the calculated performance of a typical remote condensing rack, in the manner prescribed by AHRI 1200, is a consistent way to compare performance of remote condensing display cases.

In chapter 2 of the preliminary analysis TSD, DOE discussed the potential of addressing coverage of remote condensers in a separate future rulemaking. DOE believes that, should any such action take place in the future, such a proceeding would be the appropriate venue in which to investigate dedicated remote condensers.

6. Small Units

Traulsen stated that it believes that smaller units are effectively prohibited under current DOE regulations, and that it recognizes that legislative change is the proper avenue for resolution of this issue. (Traulsen, No. 45 at p. 5)

DOE understands manufacturer concerns regarding the performance of small units, and took steps to account for them in its analyses. In its engineering analysis, DOE selected specifications for units that it found to be representative of typical, high sales volume models for each of the equipment classes directly analyzed. These selections were based on market and industry research, and the representative unit specifications were presented to manufacturers for their feedback and input during manufacturer interviews. The representative units were then used as one analysis point in developing the standard-level equations for their respective classes. DOE also developed ''offset factors'' that form the second analysis point used in developing the linear equations that represent the equipment standards. The purpose of the offset factor is to account for energy consumption end effects inherent in equipment of all sizes so that certain groups of units, including small units, would not be disadvantaged by the standard-level equations. To understand how the offset accounts for size effects, consider the energy consumption of a single lighting fixture—a feature common to all sizes of VCT display cases. The development of offset factors resulted in energy allowances at zero case volume or TDA, thus preventing even the smallest cases from being disadvantaged by the standards. The procedure that DOE used to develop the offset factors implicitly assumes that small units are relatively less efficient than larger units, particularly in the case of the smallest-sized equipment. Therefore, DOE believes that its analysis adequately accounts for smaller units. A detailed discussion of offset factors can be found in chapter 5 of the NOPR TSD.

7. Consideration of Impact of Amended Standards

Traulsen stated that there are many niches of commercial refrigeration equipment that are essential to manufacturers and customers, and that setting overly aggressive standards may lead to inadvertent equipment design obsolescence. Traulsen thus urged DOE to take a conservative approach when setting mandatory standards. (Traulsen, No. 45 at p. 1)

DOE performed an MIA, as required by 42 U.S.C. 6295(o)(2)(B)(i)(I) and 6316(e)(1), in which it assessed both the qualitative issues of concern to manufacturers and the quantitative potential impacts to the commercial refrigeration equipment industry. These impacts were weighed and taken into consideration during the selection of the proposed standard level in an effort to minimize adverse impacts on the industry. DOE also notes it considers the design configurations offered in the commercial refrigeration equipment market in its analysis and selection of equipment classes. As required by EPCA, DOE does not set standards that eliminate equipment designs that deliver unique utility or features for consumers. (42 U.S.C. 6295(o)(4) and 6316(e)(1))

8. CO_2 Cascade Systems

Hussmann stated that, in California, Title 24 [23] allows the use of CO_2 cascade systems,[24] and that compliance with both Title 24 and amended DOE standards could make development of a CO_2 cascade system difficult. (Hussmann, Public Meeting Transcript, No. 31 at p. 153) True stated that there is no DOE test procedure for cascade systems, and that there has been no consideration of cascade systems in the standards-setting process. (True, Public Meeting Transcript, No. 31 at p. 154)

DOE agrees with True that secondary coolant systems, including CO_2 cascade systems, are not being addressed in this rulemaking, partially due to the lack of an industry-accepted method of test for this type of equipment. DOE articulated its rationale in the preliminary analysis TSD chapter 2 and maintains the position in this notice.

9. Coverage of Existing Cases Undergoing Refurbishments or Retrofits

During the NOPR analysis period, DOE received a stakeholder inquiry as to whether the Department's energy conservation standards apply only to new equipment manufactured or imported after the compliance date, or to existing equipment undergoing retrofits and refurbishments as well.

DOE wishes to clarify that energy conservation standards apply only to new equipment, and not to previously installed equipment undergoing retrofits or refurbishments. As DOE stated in its Certification, Compliance and Enforcement final rule published on March 7, 2011, manufacturers and private labelers must certify to DOE that any covered equipment meets the applicable standard before distributing that equipment into U.S. commerce. DOE's authority covers newly manufactured equipment and does not extend to rebuilt and refurbished equipment. 76 FR 12422, 12426 and 12437 (March 7, 2011).

10. Components Shipped as After-Market Additions

DOE has received inquiries regarding open commercial refrigerated display cases that may be shipped with doors to be installed in the field. Stakeholders have sought guidance on whether equipment that is produced and shipped in this manner would be subject to the standards applicable to an open case or subject to the standards applicable to a closed case.

DOE's response to the issue of components shipped as after-market additions will be addressed in the on-going test procedure rulemaking.

11. Definition of Hybrid Equipment

During the NOPR analysis period, DOE received a comment regarding the definition of hybrid equipment.

[23] ''Title 24'' refers to Title 24, part 6 of the California Code of Regulations, and includes California's energy efficiency standards for residential and nonresidential buildings. This is available at: *www.energy.ca.gov/title24/*.

[24] A cascade system is a type of secondary-loop refrigeration cycle that uses a higher-temperature refrigerant to condense the secondary refrigerant, in this case carbon dioxide, which is then used to cool the refrigerated space.

Specifically, the stakeholder inquired about the proper definition of commercial hybrid refrigerator-freezer and the applicable standards.

DOE's response to the issue of hybrid equipment will be addressed in the on-going test procedure rulemaking.

12. Coverage of Commercial Refrigeration Equipment With Drawers

DOE has received several comments from interested parties regarding the coverage of commercial refrigeration equipment units with drawers. Specifically, interested parties inquired if commercial refrigeration equipment units with drawers were covered under the existing and proposed energy conservation standards for commercial refrigeration equipment and, so, (1) which equipment families they belong to; and (2) what the test procedure requirements are for these units.

DOE's response to the issue of commercial refrigeration equipment with drawers will be addressed in the on-going test procedure rulemaking.

B. Test Procedures

DOE received several comments that pertain only to the test procedure rulemaking. DOE responded to these and similar comments in the 2012 test procedure final rule. 77 FR 10298, 10300, and 10307 (Feb. 21, 2012). Specifically, DOE received comments from multiple interested parties that many cases are installed with remote lighting controls that are operated at the aisle or store level (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 190–91, 194; Zero Zone, Public Meeting Transcript, No. 31 at p. 196; California Investor Owned Utilities, No. 42 at p. 4) and, according to the Northwest Energy Efficiency Alliance (NEEA), that cases wired uniquely to receive a remote energy management system should receive credit in the DOE test procedure. (NEEA, Public Meeting Transcript, No. 31 at p. 195) DOE also received comments from interested parties that an accepted test method for secondary coolant systems, especially those with two-phase flow, had not been developed and validated. (True, Public Meeting Transcript, No. 31 at pp. 162–64; Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 164–65; AHRI, Public Meeting Transcript, No. 31 at pp. 165–66) Because these comments pertain only to the test procedure for commercial refrigeration equipment and not the potential standards or analysis discussed in this rulemaking, DOE addressed these comments in the 2012 test procedure final rule and has not addressed them further here.

NEEA stated that DOE's efforts to conduct a robust standards analysis are hindered by DOE's failure to resolve some test procedure issues and the fact that test procedure limitations have resulted in the removal of some technologies from consideration. Among these issues, according to NEEA, are the inability of the test procedure to measure savings from anti-sweat heater controls and the screening out of variable-speed and variable-capacity components based on the perceived limitations of the test procedure. (NEEA, No. 36 at p. 1)

DOE recognizes stakeholders' desire that the DOE test procedure better measure the performance of variable-speed and variable-capacity devices. However, in the 2012 test procedure final rule, DOE stated that testing of part-load technologies would significantly increase the burden on manufacturers to test and certify equipment and is not justified given the minimal efficiency gains achieved by this equipment. 77 FR 10308 (Feb. 21, 2012). As such, DOE maintained that the fluctuations in refrigeration load experienced by equipment undergoing the DOE test procedure are sufficiently representative of average use, and that the establishment of additional test requirements would impose an undue burden on manufacturers. When evaluating amended energy conservation standards, DOE bases its engineering analysis on the energy efficiency of a unit as tested by the DOE test procedure. DOE has assessed the potential energy savings associated with technologies as tested under the test procedure established in DOE's 2012 test procedure final rule and considered technologies based on the factors prescribed by EPCA. (42 U.S.C. 6295(o)(2)(B)(i) and 6316(e)(1))

C. Market and Technology Assessment

When beginning an energy conservation standards rulemaking, DOE develops information that provides an overall picture of the market for the equipment concerned, including the purpose of the equipment, the industry structure, and market characteristics. This activity includes both quantitative and qualitative assessments based primarily on publicly available information (*e.g.,* manufacturer specification sheets, industry publications) and data submitted by manufacturers, trade associations, and other stakeholders. The subjects addressed in the market and technology assessment for this rulemaking include: (1) Quantities and types of equipment sold and offered for sale; (2) retail market trends; (3) equipment covered by the rulemaking; (4) equipment classes; (5) manufacturers; (6) regulatory requirements and non-regulatory programs (such as rebate programs and tax credits); and (7) technologies that could improve the energy efficiency of the equipment under examination. DOE researched manufacturers of commercial refrigeration equipment and made a particular effort to identify and characterize small business manufacturers. See chapter 3 of the NOPR TSD for further discussion of the market and technology assessment.

1. Equipment Classes

In evaluating and establishing energy conservation standards, DOE generally divides covered equipment into classes by the type of energy used, or by capacity or other performance-related feature that justifies a different standard for equipment having such a feature. (42 U.S.C. 6295(q) and 6316(e)(1)) In deciding whether a feature justifies a different standard, DOE must consider factors such as the utility of the feature to users. *Id.* DOE normally establishes different energy conservation standards for different equipment classes based on these criteria.

Commercial refrigeration equipment can be divided into various equipment classes categorized by specific physical and design characteristics. These characteristics impact equipment efficiency, determine the kind of merchandise that the equipment can be used to display, and affect how the customer can access that merchandise. Key physical and design characteristics of commercial refrigeration equipment are the operating temperature, the presence or absence of doors (*i.e.,* closed cases or open cases), the type of doors used (transparent or solid), the angle of the door or air curtain [25] (horizontal, semivertical, or vertical), and the type of condensing unit (remote condensing or self-contained). The following list shows the key characteristics of commercial refrigeration equipment that DOE developed as part of the January 2009 final rule (74 FR 1099–1100 (Jan. 9, 2009)), and used during the Framework and preliminary analysis for this rulemaking:

1. Operating Temperature

- Medium temperature (38 °F, refrigerators)

[25] An air curtain is a continuously moving stream of air, driven by fans, which exits on one side of the opening in an open refrigerated case and re-enters on the other side via an intake grille. The function of the air curtain is to cover the opening in the case with this sheet of air, which minimizes the infiltration of warmer ambient air into the refrigerated space.

- Low temperature (0 °F, freezers)
- Ice-cream temperature (−15 °F, ice-cream freezers)

2. Door Type

- Equipment with transparent doors
- Equipment with solid doors
- Equipment without doors

3. Orientation (air-curtain or door angle)

- Horizontal
- Semivertical
- Vertical

4. Type of Condensing Unit

- Remote condensing
- Self-contained

Additionally, because EPCA specifically sets a separate standard for refrigerators with a self-contained condensing unit designed for pull-down temperature applications and transparent doors, DOE plans to create a separate equipment class for this equipment. (42 U.S.C. 6313(c)(3)) DOE included this equipment in the form of a separate family with a single class (PD.SC.M) for the preliminary analysis. A total of 49 equipment classes were created, and these are listed in chapter 3 of the NOPR TSD using the nomenclature developed in the January 2009 final rule. 74 FR 1100 (Jan. 9, 2009).

During the April 2011 preliminary analysis public meeting and in subsequent written comments, a number of stakeholders addressed issues related to proposed equipment classes and the inclusion of certain types of equipment in the analysis. These topics are discussed in this section.

a. Equipment Classification

Several stakeholders commented on the general equipment classification structure used by DOE in the preliminary analysis. Traulsen stated that, with respect to the currently defined classes of equipment, there are subcategories DOE failed to specify, including upright units (1-, 2-, and 3-section; reach-in; pass-through; roll-in; and roll-through) and undercounter units (categorized by length in inches). (Traulsen, No. 45 at p. 1) On the other hand, Zero Zone approved of DOE's proposed equipment classes, as presented in the preliminary analysis TSD. (Zero Zone, No. 37 at p. 4) AHRI stated that the equipment class nomenclature developed by DOE in the January 2009 final rule was appropriate. (AHRI, No. 43 at p. 2)

In response to Traulsen's comment, DOE recognizes that there are subcategories of equipment within certain equipment families and classes, each with varying geometries. However, DOE believes that the equipment classes it has developed and modeled are broad enough to account for the variety of equipment incorporated within each of them, including the unit types described in Traulsen's comment. In performing its engineering analysis, DOE selected representative unit sizes and feature sets for modeling so as to best represent a typical unit for each given class. Regarding the comments from Zero Zone and AHRI, DOE has retained the equipment classes and nomenclature adopted in the January 2009 final rule (74 FR 1100 (Jan. 9, 2009)) and used in the Framework document and preliminary analysis for this NOPR.

b. Application Temperature Equipment

DOE received feedback on the subject of application temperature equipment [26] at the April 2011 preliminary analysis public meeting and in written comments. NEEA stated that the difference between DOE rating temperatures and application temperatures can be significant, and commented that allowing manufacturers to demonstrate that equipment meets a standard defined by rating temperature by testing at (presumably higher) application temperatures would equate to a very lenient standard for such equipment. (NEEA, Public Meeting Transcript, No. 31 at pp. 26–27) NEEA added that, for such equipment, the difference between ambient conditions and internal conditions would be much lower than for equipment maintaining a temperature of 38 °F, and that daily energy use for this equipment would be lower as well. Thus, while NEEA agreed that cabinets should be tested at the lowest temperature they can achieve, NEEA stated that, if the standard for such cabinets is set equal to the level of energy use of cabinets designed to hold 38 °F, that equipment may be much less efficient than what could be cost-effectively possible were separate standards set for the equipment. (NEEA, No. 36 at p. 2) NEEA further asked why DOE was not proposing to set separate standards for application temperature equipment. (NEEA, Public Meeting Transcript, No. 31 at pp. 26–27) NEEA stated that, while DOE has dismissed concerns regarding application temperature equipment because it is roughly 2 percent of the market, NEEA has heard from manufacturers that it is a growing market segment and added that 2 percent is, in its opinion, a nontrivial portion of the market. (NEEA, No. 36 at pp. 1–2)

Moreover, NEEA asserted that DOE failed to acknowledge the differences between high-temperature equipment (*e.g.,* floral cases) and ice storage cabinets, and suggested two new equipment classes for these products: One for equipment with cabinet temperature greater than 40 °F and one for ice storage cabinets that can operate outdoors and are designed to hold temperatures between 20 and 30 °F. (NEEA, No. 36 at p. 2; NEEA, Public Meeting Transcript, No. 31 at pp. 26–27) NEEA further opined that ice storage cabinets in particular are often used in environments not well represented by the test procedure conditions, namely outdoor environments. NEEA added that to allow the test procedure to not represent the operating conditions of this equipment would violate 42 U.S.C. 6295(2). (NEEA, No. 36 at pp. 1–2)

True stated that, during the test procedure public meeting, interested parties suggested that the lowest application temperature should include ice storage and be in the mid-twenties. (True, Public Meeting Transcript, No. 31 at p. 177) Traulsen commented that it did not have an issue with testing equipment at internal temperatures that are higher than the rating temperatures, such as 50 °F or 10 °F. However, Traulsen expressed concern regarding equipment that is designed to run at internal temperatures that are lower than the rating temperature, or ambient temperatures that are higher than the test ambient temperature. Specifically, Traulsen stated that this equipment inherently uses more energy at the design conditions (often very high ambient temperatures and relative humidities) and may also use more energy at the designated rating conditions (the temperature and relative humidity values specified by ASHRAE 72–2005) as well. Traulsen provided the examples of a piece of equipment designed to hold ice cream at −40 °F and a unit designed for 105 °F ambient conditions. (Traulsen, No. 45 at p. 2)

In the 2012 test procedure final rule, DOE adopted provisions that allow for the testing of commercial refrigeration equipment that cannot operate at its prescribed rating temperature at the ''lowest application product temperature.'' DOE defined ''lowest application product temperature'' as ''the integrated average temperature closest to the specified rating temperature for a given piece of equipment achievable and repeatable, such that the integrated average temperature of a given unit is within ±2 °F of the reported lowest application

[26] Application temperature equipment is equipment that is designed to operate at temperatures distinctly different from the DOE rating temperatures of 38 °F, 0 °F, and −15 °F. Examples include wine chillers and candy cases, which operate in the range of 45 to 60 °F.

product temperature for that basic model.'' DOE also applied this provision to all refrigerators, freezers, and ice-cream freezers. 77 FR 10302 (Feb. 21, 2012).

DOE maintains that units tested at the lowest application product temperature will still be required to meet the applicable energy conservation standard based on their equipment class. The required standard level will not change based on the different internal temperature at which a particular unit is tested. While DOE understands that this requirement makes it easier for a small number of units (that cannot be tested at the prescribed rating temperatures) to meet the current standards, DOE does not believe that establishing separate equipment categories for these niche types of equipment would be justified because the energy savings achievable with such standards would be relatively small. In response to NEEA's suggestion that ice chests designed to operate outdoors be tested at alternate ambient conditions, DOE notes that its test procedure prescribes only one ambient condition. DOE believes this ambient condition is adequately representative of the operating conditions for the majority of commercial refrigeration equipment. Additionally, DOE has seen no evidence that a unit designed to perform at stricter conditions than the DOE test procedure (*i.e.,* higher ambient temperature and/or humidity) would have difficulty meeting a standard at the conditions prescribed in the test procedure.

In response to NEEA's assertion that application temperature equipment is a growing commercial refrigeration equipment market segment, DOE has no data to substantiate the assertion. DOE has not collected shipments data indicating that such a trend exists, nor have manufacturer interviews indicated that this is the case. Application temperature equipment represents a niche equipment market, and this equipment has been in existence for a long time (*e.g.,* candy cases, wine cases, floral cases). DOE has no evidence indicating that this market segment will grow disproportionately to other equipment types.

DOE also agrees with Traulsen that testing these units at a higher integrated average temperature does not necessarily mean that the unit will use less energy. The variability in energy use and the impact of variation in integrated average temperature will vary based on case type, geometry, and configuration. This variation would make setting a consistent standard for high-temperature or intermediate-temperature equipment impractical, because any value chosen would not be representative of all cases.

c. Open Cases

At the April 2011 preliminary analysis public meeting and in written comments, numerous stakeholders revisited the issue of DOE's proposed decision to retain separate standards for open and closed cases. Earthjustice first raised the issue, inquiring about the evidence behind DOE's assertion that open cases provide distinct utility with respect to features such as unobstructed view and access to product, as well as simplified stocking, cleaning, and maintenance. Earthjustice continued by stating that it wished to renew its request that DOE continue grouping open and doored cases together, adding that any determination of utility is required to be based on substantial evidence. (Earthjustice, Public Meeting Transcript, No. 31 at pp. 23, 25) AHRI responded that the distinction between the two types of cases was made in the language of EPACT 2005, which was developed through negotiations among AHRI and other parties, including advocacy groups. (AHRI, Public Meeting Transcript, No. 31 at pp. 24–25) Southern Store Fixtures added that open and doored cases are two distinct types of equipment with different applications, and that they cannot be combined into a single category. Southern Store Fixtures also stated that substantial analysis and evidence would have to be provided in order to show that there would be no product loss or sales loss as a result of moving from open to doored cases. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 28–29)

In further discussion at the public meeting, Earthjustice stated that it had submitted to DOE a study conducted by ASHRAE,[27] as well as a Swedish study, to support Earthjustice's assertion that product sales are unaffected by the presence of door on cases. (Earthjustice, Public Meeting Transcript, No. 31 at p. 29) However, Southern Store Fixtures stated that it would dispute the ASHRAE study regarding open cases, and that it would articulate its argument later. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 29–30) Additionally, the Swedish study was retracted from submission due to copyright issues.

Stakeholders also provided comments regarding the subject of metrics of utility. Pacific Gas and Electric (PG&E) stated that, in its opinion, sales would be the most obvious metric, along with the ability to keep product at the desired temperature. However, PG&E asked that DOE elaborate on how it would quantify what constitutes utility. (PG&E, Public Meeting Transcript, No. 31 at pp. 30–31) The California Investor Owned Utilities (CA IOUs) included a similar request in its written comment, asking that DOE clarify what it specifically considers as criteria to justify unique utility. CA IOUs also asked that DOE continue to assess options that would enable open cases to consume amounts of energy similar to those used by equivalent closed cases. (CA IOUs, No. 42 at p. 5) Zero Zone, continuing on the subject of utility, stated that, in its opinion, there may have been utility differences between open and doored cases at one time, but since that time it believed the market had changed and this difference no longer exists. As a result, Zero Zone supported the comments suggesting that DOE combine the open and doored display case classes. (Zero Zone, Public Meeting Transcript, No. 31 at p. 32)

The Appliance Standards Awareness Project (ASAP), while not commenting specifically on equipment utility, stated that it believed the issue of open versus closed cases is very important from an NES perspective, as the preliminary analysis documents showed that open cases consume two to three times as much energy as comparable doored cases. (ASAP, Public Meeting Transcript, No. 31 at p. 32) CA IOUs agreed with DOE's assessment that open, low-temperature vertical and semivertical cases represent small portions of the market. Further, it pointed out that the California Energy Commission (CEC) is proposing to require doors on all upright, low-temperature cases at the State level. (CA IOUs, No. 42 at p. 5)

During the preliminary analysis comment period, Earthjustice submitted a detailed comment outlining its position on the issue of open cases. Earthjustice expressed its belief that separate standards for open cases are neither warranted nor required by EPCA, as well as its opinion that such cases provide no capacity or performance features justifying separate standards, once again referencing the previously submitted ASHRAE and Swedish studies. Implicitly in response to statements made by AHRI at the public meeting, Earthjustice added that EPACT 2005's codification of standards for equipment with doors does not require DOE to maintain separate

[27] Fricke, B.A., and B.R. Becker. *Comparison of Vertical Display Cases: Energy and Productivity Impacts of Glass Doors Versus Open Vertical Display Cases.* December 2009. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Atlanta, GA. Report No. RP–1402. *http://rp.ashrae.biz/researchproject.php?rp_id=580*

classes for equipment without doors. (Earthjustice, No. 35 at p.1) Earthjustice expressed the belief that DOE's intention to adhere to its previous stance that the presence or absence of doors on cases affects case utility ignores the evidence that has been presented in the form of the aforementioned ASHRAE and Swedish sales studies, and that EPCA requires DOE's factual conclusions to be supported by substantial evidence which, according to Earthjustice, DOE has not provided. (Earthjustice, No. 35 at p. 2)

Earthjustice reiterated its disagreement with DOE's assertion in the preliminary analysis that open cases provide utility in the form of ''unobstructed view of and access to product,'' citing the two sales studies that it believed to conclude otherwise. Earthjustice also disagreed with DOE's statement that open cases simplify stocking, cleaning, and maintenance, questioning how the need to prop a door open would impede stocking a case. On the contrary, Earthjustice asserted, the presence of doors would reduce warm air infiltration and the opportunities for items to fall out of the case onto the store floor, thereby reducing stocking burdens and losses due to products damaged during stocking. Furthermore, Earthjustice stated that DOE has not suggested shorter life cycles for equipment with doors, something it believes would be a logical outcome were the presence of doors to impair cleaning and maintenance operations. (Earthjustice, No. 35 at p. 2)

Earthjustice then presented a legal argument, stating that, in maintaining that 42 U.S.C. 6295(o) prevents the merging of equipment classes for equipment with and without doors, DOE has misconstrued the statutory authority for whether separate classes are required. Earthjustice asserted that DOE has, in its preliminary analysis TSD, attempted to shift the evidentiary burden onto the stakeholders who support equivalent standards for the two equipment types. Earthjustice commented that, in dismissing the findings of the ASHRAE study, DOE has violated the plain language of EPCA, which requires that a preponderance of the evidence must support the position that open cases provide a unique feature in order for DOE to conclude that separate equipment classes are required. (Earthjustice, No. 35 at pp. 2–3)

Earthjustice suggested that, should DOE decide not to merge classes for open and closed cases, DOE should adopt standards reflecting the overlapping applications for the equipment. Earthjustice stated that because equipment with doors is economically advantageous on an LCC basis, encouraging a shift to equipment with doors will increase the monetary savings from this rulemaking. (Earthjustice, No. 35 at p. 3) By adopting highly cost-effective standards for equipment with doors as well as standards that would result in LCC increases for open cases, Earthjustice suggested, DOE could encourage consumers to purchase cases with transparent doors. Earthjustice stated that DOE has taken a market-transforming approach in the past. Specifically, Earthjustice referenced the small electric motors rulemaking (75 FR 10874 (March 9, 2010)), in which DOE maintained standards for two types of general purpose single-phase motors but tailored those standards to encourage the market to shift to one of those types. (Earthjustice, No. 35 at p. 3) Similarly, Earthjustice added, in the rulemaking for commercial clothes washers (75 FR 1122 (Jan. 8, 2010)), DOE adopted standards set at the max-tech level for top-loading washers, but less aggressive standards for front-loading washers, partially to encourage the growth of front-loader market share. In conclusion, Earthjustice suggested that DOE adopt the max-tech level for equipment without doors and a more economically advantageous standard for equipment with doors, thus encouraging the market to shift to doored cases. (Earthjustice, No. 35 at pp. 3–4)

DOE understands the concern of some stakeholders regarding the issue of open cases. While some stakeholders have reiterated their previous positions on this topic, DOE does not believe that any new data has been presented since the Framework document public meeting (May 2010) that would warrant a change in DOE's stance as outlined in chapter 2 of the preliminary analysis TSD. DOE maintains that to set standards discouraging users from purchasing open cases would violate its statutory charge to preserve the availability of features and performance characteristics currently on the market. While Earthjustice again cited the ASHRAE study and the Swedish study comparing sales from open and closed cases, DOE still maintains its position from the preliminary analysis. After having reviewed the ASHRAE study, DOE believes that because the data were collected only under very specific conditions in a controlled environment and with a limited range of merchandise types, the data are insufficient to drive a conclusion applicable across the broad wide range of open case applications and end uses. As one example, DOE points out that neither study includes fresh produce and packaged meat products in the analysis of impact on product sales, and that these are types of merchandise that manufacturers have mentioned as benefiting from the use of open cases.

Regarding the questions about the definition of utility raised by Earthjustice and PG&E, EPCA states that, in setting or amending standards, the Secretary must consider, among other factors, any lessening of the utility or performance of the covered products likely from the imposition of the standard. (42 U.S.C. 6295(o)(2)(B)(i)(IV) and 6316(e)(1)) EPCA further states that the Secretary may not prescribe an amended or new standard under this section if the Secretary finds (and publishes such finding) that interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of the Secretary's finding. (42 U.S.C. 6295(o)(4) and 6316(e)(1))

Thus, while the term ''utility'' is not specifically defined in EPCA, it is used in conjunction with the term ''performance''; the statute further prohibits DOE from setting standards that result in the unavailability of performance characteristics or features from the U.S. market. In this case, DOE has determined that customer access to product is a distinct performance characteristic or feature in the case of commercial refrigeration equipment and believes, based on its research and discussions with experts and members of industry, that open cases provide more convenient access to products than do closed cases, as well as providing other measures of utility, such as ease of stocking and cleaning.

In response to the comment by Earthjustice that DOE violated the plain language of EPCA, which requires that a preponderance of the evidence must support the position that open cases provide a unique feature in order to conclude that separate equipment classes are required, DOE refers to the language found at 42 U.S.C. 6295(o)(4) and 6316(e)(1). This language states that the Secretary may not issue a standard if interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States of any covered product type (or class) of performance characteristics (including

reliability), or features currently available. One statement suggesting that the elimination of open cases would have this effect was presented at the April 2011 preliminary analysis public meeting, when Southern Store Fixtures explicitly stated that open and doored cases are two different equipment types, adding that ''substantial analysis and evidence would have to be provided'' to ensure that there would be no detriment to performance by combining the classes. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 28–29) DOE has agreed with this stance in its past and current proceedings, as evidenced by the retention of separate equipment types for open and closed cases in its analyses. At the commercial refrigeration equipment test procedure NOPR public meeting, Coca-Cola, a major purchaser of display cases, cited internal studies concluding that the presence of doors on displays near registers can decrease sales by 35 to 50 percent. (Docket No. EERE–2010–BT–TP–0034, Coca-Cola, No. 19 at p. 90) These study results stand in contrast to the assertion by Earthjustice that the two sales studies it provided show that open cases do not provide utility in the form of unobstructed view of and access to product. The conflict between the sets of data suggests that, while both conclusions may be correct in the specific contexts of the respective studies, in some applications the presence of doors on cases can adversely affect visibility and access to product. Therefore, elimination of open cases from the market would equate to the unavailability of this performance characteristic, in direct violation of (42 U.S.C. 6295(o)(2)(B)(i)(IV) and 6316(e)(1)).

In its manufacturer interviews, DOE spoke with several manufacturers who provided anecdotal data regarding the utility of open cases. They pointed to increased sales due to ''impulse buys,'' stating that users of open cases reported generating higher revenues out of those cases. Manufacturers also stated that open cases allow for vastly easier stocking of high-margin items including produce and meat. The ease of stocking these items is particularly important to retailers, because open cases are stocked continuously while shoppers are in the store, making simultaneous, unobstructed access to the case by both the employee and customer an important utility issue. Manufacturers reaffirmed during these interviews that unobstructed view of and access to product, as well as simplified stocking, as previously referenced by DOE, were significant attributes of open cases. Furthermore, the manufacturers pointed to better accommodation of non-standard-sized merchandise within these cases. The information that DOE has gathered regarding market perceptions at conferences and other venues has indicated that many grocery store managers and operators strongly prefer open cases to closed cases, as they perceive that product visibility from a distance is a very strong factor in sales. Engineers for large chain grocery stores have stated that their efforts to convert even part of the grocery store equipment from open cases to closed cases, during store remodeling, have been met with opposition from store managers due to their perception that open cases lead to higher sales compared to closed cases. This finding is in contrast to the statement by Zero Zone that utility differences between open and doored cases no longer exist. The statement by Zero Zone also conflicts with the internal study data quoted by Coca-Cola, in which that company noted a significant loss in sales due to the presence of doors on display cases in certain settings. As the result of a collective review of the data obtained through its public meetings, manufacturer interviews, and conferences, DOE believes that its position of setting separate standards for open and closed cases is reasonable and based on the distinct performance characteristics of each class, as shown by a preponderance of the evidence presented. DOE notes that manufacturers did not cite differences in maintenance and cleaning between open and closed cases, but DOE believes the other utility and performance factors cited, including ease of access to the product, increased visibility, and ease of use during operations and maintenance, are sufficient to warrant maintenance of two separate equipment classes.

DOE understands AHRI's statement that the distinction between case types was made in the EPACT 2005 language, which set standards for closed cases and required DOE to set standards for open cases (42 U.S.C. 6313(c)), and Earthjustice's response that the codification of separate standards does not require DOE to maintain different classes. However, DOE is restricted by EPCA from prescribing energy conservation standards in any manner that would lessen utility to the customer or result in the unavailability of performance characteristics or features currently on the market. (42 U.S.C. 6295(o)(2)(B)(IV), 6295(o)(4), and 6316(e)(1)) Therefore, DOE continues to consider open and doored cases to be two distinct equipment types due to the evident performance and feature differences between them.

DOE acknowledges ASAP's statement that open cases have been shown to consume more energy than doored cases and CA IOU's assertion that open, low-temperature cases comprise a small market share. However, independent of these factors, as stated above, DOE is forbidden by EPCA from setting standards that would result in the unavailability on the market of the performance characteristics and features that open cases exhibit. (42 U.S.C. 6295(o)(4) and 6316(e)(1)) Therefore, DOE, through its analyses, sought to develop separate proposed standard levels for open and closed cases that would result in the maximum economically justified and technologically feasible energy savings for the respective equipment.

Regarding Earthjustice's assertion that DOE failed to suggest shorter life cycles for commercial refrigeration equipment with doors, DOE points out that the replacement of doors is one of the factors contributing to repair costs (see chapter 8 of the NOPR TSD). Damage to doors does not necessarily shorten the life of the equipment itself.

With respect to Earthjustice's suggestion that DOE force a market shift from open to closed cases by adopting cost-effective standards for doored cases but less economically attractive standards for open cases, DOE is compelled by EPCA to examine the economic and technical justification of all equipment under the same criteria and with the same rigor. (42 U.S.C. 6295(o) and 6316(e)(1)) In other words, DOE must independently determine the maximum technologically feasible and economically justified standard level for each equipment class. Therefore, DOE examined all TSLs equally using the same quantitative metrics, such as LCC and national NPV, and selected a proposed standard level using these criteria. In response to the suggestion that DOE adopt a market-transforming approach in which it would intentionally shift market share toward doored cases, DOE believes that to do so would violate the EPCA provision barring DOE from setting standards that result in the lessening of utility or unavailability of performance characteristics. (42 U.S.C. 6295(o)(4) and 6316(e)(1)) Because DOE has determined that open cases present a unique set of performance characteristics and features to the market, to set standards eliminating their manufacture and sale would violate 42 U.S.C. 6295(o)(4) and 6316(e)(1). DOE notes that in the

rulemakings for small electric motors and commercial clothes washers that Earthjustice cited, DOE was careful to set standards such that they would not result in the unavailability of features or performance characteristics. For example, the commercial clothes washers final rule, published by DOE on January 8, 2010, states that the amended efficiency levels can be met by either top- or front-loading designs. In fact, the clothes washers final rule notes that there were vertical-axis top-loading and horizontal-axis frontloading washers on the market at the time that already met the higher standard. Thus, DOE concluded, consumers would have the same range of clothes washer options, including features valued by consumers such as door placement, capacity, water temperature, and adjustable load sizes. 75 FR 1122, 1133–34 (Jan. 8, 2010). In the case of commercial refrigeration equipment, DOE believes that separate equipment classes are necessary to preserve the unique features provided by open refrigerated display cases, established by interested parties as discussed above. DOE does not believe it would be possible to combine standards classes or arbitrarily set more aggressive standards for open cases without violating EPCA provisions regarding utility/product availability. (42 U.S.C. 6295(o)(2)(B) and 6316(e)(1)) As a result, DOE has maintained the position regarding utility of open cases that it asserted in the January 2009 final rule and in its preliminary analysis and framework document. 74 FR 1099 (Jan. 9, 2009).

DOE understands that there are other options available in the market to reduce the energy consumption of open cases, such as retrofitting doors to open cases, and that DOE's energy conservation standards may not be the only factor related to improving the energy efficiency of open cases. DOE believes that, in general, management staff of grocery stores is well aware of high energy costs because energy costs consistently figure as one of the top five issues in the Food Marketing Institute (FMI) Worry Index,[28] which is obtained through surveys of the food retailers regarding the most important issues in their businesses that cause them to ''worry.'' Some stores have retrofitted their open cases with transparent doors to achieve substantial savings in energy costs. DOE also recognizes that the market for retrofitting open, multi-deck display cases with transparent doors is steadily increasing. In addition, features such as night curtains and more-efficient air curtains are also available in the market to reduce the energy consumption of open cases.

In its NOPR analyses, DOE modeled open and closed display cases separately, and has included separate proposed standards for the two types of equipment in this notice.

d. Service Over Counter Equipment

AHRI voiced concerns about self-contained service over counter (SOC) equipment,[29] stating that DOE incorrectly determined that SOC equipment was covered by EPACT 2005 and that this error resulted in an overly stringent standard being applied to the equipment. (AHRI, No. 43 at p. 2) AHRI commented that it, working with other stakeholders, had proposed legislative language that defines SOC equipment and establishes minimum standards for that equipment, which is included in the Implementation of National Consensus Appliance Agreements Act of 2011, S. 398, 112th Cong. (2011). AHRI asked that DOE adopt the definition of SOC equipment that AHRI had proposed in that legislation, and also asked DOE to use TDA as a normalization metric for this equipment. (AHRI, No. 43 at p. 2)

With respect to the statement by AHRI that DOE has incorrectly determined that SOC equipment is within the scope of coverage of EPACT 2005, DOE disagrees, having determined that SOC.SC.M equipment meets the statutory definition of a self-contained commercial refrigerator with transparent doors in 42 U.S.C. 6311(9)(A). EPCA does not specify equipment subsets such as SOC equipment beyond defining the terms ''commercial refrigerator,'' ''freezer,'' and ''refrigerator-freezer'' and ''self-contained condensing unit,'' among other definitions related to this equipment. (42 U.S.C. 6311(9)) In December 2009, DOE's Office of Hearings and Appeals (OHA) responded to an application for exception relief from a manufacturer of SOC equipment. This manufacturer argued that it was entitled to relief because its SOC units could not meet the EPACT 2005 standards for self-contained equipment with doors. OHA responded that DOE did not have jurisdiction to consider such exceptions for equipment covered by the statutorily mandated standards. (Case No. TEE–0066, Dec. 29, 2009)

During the preliminary engineering analysis for this rulemaking, DOE confirmed that the EPACT 2005 standards for SOC.SC.M (42 U.S.C. 6313(c)(2)) could not be achieved at even the max-tech level (see chapter 2, section 2.2.1.5, of the preliminary analysis TSD). Therefore, DOE agrees with AHRI's comment that the standard set by EPACT 2005 was too stringent for equipment belonging to equipment class SOC.SC.M. Consequently, DOE had excluded SOC.SC.M equipment from the preliminary analysis.[30]

In December 2012, during the NOPR analysis for this rulemaking, the American Energy Manufacturing Technical Corrections Act (AEMTCA), Public Law 112–210 (Dec. 18, 2012) amended EPCA to establish new standards for self-contained service over counter medium temperature commercial refrigerators. (42 U.S.C. 6313(c)(4)) The amendment reduces the stringency of the standard applicable to this equipment. AEMTCA prescribed the standard for SOC.SC.M equipment manufactured on or after January 1, 2012 as $0.6 \times TDA + 1.0$, expressed in kilowatt hours per day. (42 U.S.C. 6313(c)(4)(A))

AEMTCA also amended EPCA to direct DOE to determine, within 3 years of enactment of the new standard for SOC.SC.M, whether the standard should be amended. (42 U.S.C. 6313(c)(4)(B)(1) If DOE determines that the standard should be amended, then DOE must issue a final rule establishing an amended standard within this same 3-year period. (42 U.S.C. 6313(c)(4)(B))

DOE conducted the analysis for this determination of whether to amend the standard for equipment class SOC.SC.M as part of this NOPR analysis. The analysis was carried out in a manner similar to that of all the other equipment classes being analyzed as part of the current rulemaking. DOE used the standard established by AEMTCA as the baseline efficiency level for equipment class SOC.SC.M.[31] The results of the analysis indicated that if an amendment to the AEMTCA standard for equipment

[28] FMI Research. *The Food Retailing Industry Speaks 2011.* 2011. Food Marketing Institute, Arlington, VA.

[29] ''Service over counter'' means equipment with sliding or hinged doors in the back intended for use by sales personnel for loading and retrieving items for sale, and fixed, sliding or hinged transparent panels in the front for displaying merchandise. The equipment has a height no greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers.

[30] DOE had also excluded SOC.SC.L, a low-shipments-volume equipment class, from the preliminary analysis as well, as it too is covered under standards prescribed by EPACT 2005 for freezers with transparent doors found at 10 CFR 431.66(b). Due to its similarity in design, construction, and performance to SOC.SC.M equipment, DOE presumed that it too would not be able to meet the standards set by EPACT 2005 for self-contained equipment with transparent doors.

[31] This approach is similar to that adopted for all the other equipment classes, as explained in section IV.H.1.

class SOC.SC.M, based on same criteria established for all the other equipment classes of the current rulemaking,[32] would represent a reduction in energy consumption of roughly 30 percent as compared to the AEMTCA standard. Based on this result, DOE has proposed an amended standard for equipment class SOC.SC.M in this NOPR (see section I and section V.A.2).

In response to AHRI's request that DOE use TDA as a normalization metric for this equipment, the January 2009 final rule standards for remote condensing SOC equipment were expressed using TDA as a normalization metric. 74 FR 1093 (Jan. 9, 2009). As AHRI suggested, DOE proposes in this NOPR to continue to use TDA as the normalization metric for SOC equipment.

DOE is also proposing to adopt a new definition of the ''service over counter'' equipment family, which is included in this notice. DOE based its proposed definition on the definition of self-contained service-over-counter refrigerators (SOC.SC.M) found in Paragraph (1) of section 4 of AEMTCA. (42 U.S.C. 6313(c)(1)(C)) However, DOE proposes to adopt a broader definition of SOC equipment that DOE believes is applicable to all of the equipment classes that belong to the SOC equipment family, not just the single SOC.SC.M equipment class described by the AEMTCA language. The proposed definition can be found in section 0 of this NOPR.

2. Technology Assessment

As part of the market and technology assessment performed for the NOPR analysis, DOE developed a comprehensive list of technologies that would be expected to improve the energy efficiency of commercial refrigeration equipment. Chapter 3 of the NOPR TSD contains a detailed description of each technology that DOE identified. Although DOE identified a complete list of technologies that improve efficiency, DOE only considered in its analysis technologies that would impact the efficiency rating of equipment as tested under the DOE test procedure. Therefore, DOE excluded several technologies from the analysis during the technology assessment because they do not improve the rated efficiency of equipment as measured under the specified test procedure. Technologies that DOE determined impact the rated efficiency were carried through to the screening analysis and are discussed in section IV.D.

a. Technologies Applicable to All Equipment

In the preliminary analysis market and technology assessment, DOE listed the following technologies that would be expected to improve the efficiency of all equipment: higher efficiency lighting, higher efficiency lighting ballasts, remote lighting ballast location, higher efficiency expansion valves, higher efficiency evaporator fan motors, variable-speed evaporator fan motors and evaporator fan motor controllers, higher efficiency evaporator fan blades, increased evaporator surface area, low-pressure differential evaporators, increased case insulation or improvements, defrost mechanisms, defrost cycle controls, vacuum insulated panels, and occupancy sensors for lighting controls. Not all of these technologies were considered in the preliminary engineering analysis; some were screened out or removed from consideration on technical grounds, as described in chapters 3 and 4 of the NOPR TSD. After the publication of the preliminary analysis, DOE received numerous stakeholder comments regarding these technologies, discussed below.

Lighting Technologies

In response to DOE's request for comment, Southern Store Fixtures questioned DOE's specification for light-emitting diode (LED) lighting because it appeared that LEDs had a lower efficacy in terms of lumens per watt compared to T8 fluorescent lighting (the standard baseline lighting technology) in DOE's model. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 59–60) Zero Zone observed that while fluorescent lighting is a mature technology, LED lighting is constantly evolving. (Zero Zone, Public Meeting Transcript, No. 31 at p. 63) Additionally, Southern Store Fixtures suggested that the efficiency of the driver powering the LEDs be explicitly considered, as it is a key aspect of lighting energy consumption. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 62) True noted that light output from LEDs is highly directional, and the additional heat load from the LEDs increases the load on the compressor, which is less efficient than the lighting system. (True, Public Meeting Transcript, No. 31 at pp. 60–61)

Regarding the comment by Southern Store Fixtures, the output of LED light fixtures used in commercial refrigeration equipment is indeed lower in terms of lumens per watt when compared to T8 fluorescent bulbs. However, for commercial refrigerated display applications, the advantage of LED lighting lies in the directionality of its light output. While T8 lighting produces greater output in lumens, much of that light is directed toward the ambient space rather than the merchandise to be illuminated, and thus is wasted from a product merchandising perspective. LED lighting, on the other hand, is very directional, and the light can be aimed directly at the product on display. This difference allows for more conservative sizing of LED fixtures and, as a result, overall power consumption is lower compared to T8 fluorescent lamps.

DOE agrees with the comment by Zero Zone that LED lighting is an evolving technology. As a result, DOE has taken efforts to update its LED fixture cost estimates throughout the rulemaking process, gathering the most current data available from publicly available sources as well as from manufacturer interviews. Regarding Southern Store Fixtures' concern about driver power, this power consumption is considered in the engineering model and is incorporated into the calculation of calculated daily energy consumption (CDEC). Similarly, with respect to True's comment, the impact of lighting on case heat load, and thus compressor power consumption, is accounted for in the engineering model through the use of a multiplier to estimate the fraction of light produced that is retained inside the case as heat.

Lighting Controls

In addition to discussing lighting, stakeholders also commented on the location of lighting controls. Southern Store Fixtures observed that certain operators use central energy management systems to control the display case lighting, and asked if this approach would be considered instead of just the placement of occupancy sensors in individual display cases. The company added that when customers ask them to supply a case to be controlled by a central energy management system, the lights in the display cases must be wired separately from the other energy-consuming components. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 190–91, 194) Further, Southern Store Fixtures pointed out that CEC is considering these central lighting systems in its proceedings. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 197) Zero Zone stated that it typically wires cases with a separate lighting circuit to allow for

[32] The criteria for trial standard level selection can be found in section V.A.1, and discussion concerning the selection of the proposed standard level can be found in section V.C.

independent lighting control, while NEEA stated that if a case is wired differently to interface with centralized controls, it should be treated identically to a self-contained set of controls. (Zero Zone, Public Meeting Transcript, No. 31 at p. 196; NEEA, Public Meeting Transcript, No. 31 at p. 195) CA IOUs supported the manufacturer assertion made during the April 2011 preliminary analysis public meeting that it is possible to distinguish between cases designed for remote energy controls and those that are not. (CA IOUs, No. 42 at p. 4) For this reason, the CA IOUs suggested that DOE develop a calculation to measure energy savings due to the use of such remote systems in the test procedure. (CA IOUs, No. 42 at p. 4)

DOE acknowledges that there are several ways to implement lighting controls (*e.g.,* individual case controls, controls for a case lineup, storewide energy management systems), and that allowing certain systems to be included in calculating energy consumption may set a precedent for how DOE defines the boundaries of covered equipment and what technologies are allocated energy savings for a piece of equipment in the test procedure. For example, cases set up to accept remote control systems have a dedicated circuit for lights so that the lights can be controlled separately from the rest of the case. However, this lighting circuit configuration does not inherently save energy and must be paired with an expensive energy management control system, which is sold separately from the piece of commercial refrigeration equipment, is produced by different manufacturers, and is not integral to the commercial refrigeration equipment. In addition, the existence of an energy management system does not necessarily mean it will be used with commercial refrigeration equipment; for example, energy management systems are used in many stores and offices to control room lighting and temperature set points.

DOE acknowledges that remote lighting controls do save energy and may be the more commonly used technology to dim or turn off lights. However, energy consumption for a piece of commercial refrigeration equipment must be determined using the DOE test procedure to measure the energy consumption of a representative unit, as shipped to customers. Because the remote energy management system is not part of the piece of commercial refrigeration equipment as shipped from the manufacturer, but rather is a separate piece of equipment supplied by a separate manufacturer, remote energy management controls will not be considered as an energy conservation feature in this commercial refrigeration equipment rulemaking.

Part-Load Technologies

Stakeholders also submitted comments on the subject of part-load and variable-capacity technologies. These are technologies that allow the performance of the system components to be varied in response to changes in the load placed on them, such as changes due to varying ambient conditions or product loading. PG&E requested that DOE clarify its stance on part-load technologies, suggesting that there was a disparity between the NOPR DOE published on November 24, 2010, which proposed amendments to DOE's test procedures for commercial refrigeration equipment (November 2010 test procedure NOPR (75 FR 71596 (Nov. 24, 2010)) and the screening analysis presented in chapter 2 of the preliminary analysis TSD. Specifically, in the November 2010 test procedure NOPR, DOE stated that the proposed test procedure, which relied on AHRI Standard 1200 and ASHRAE Standard 72,[33] is able to capture the energy-saving effects of some part-load technologies. (76 FR 71601 (Nov. 24, 2010)). Conversely, in the screening analysis in chapter 2 of the preliminary analysis TSD, DOE removed some technologies from the analysis and stated that their effects could not be measured by the steady-state test procedure. PG&E asked DOE to clarify its stance and asked that, if DOE determines that the effects of these technologies can be measured, to include them in the screening and engineering analyses. PG&E later reiterated its desire that DOE be consistent in its approach toward technologies that maintain energy savings at variable ambient conditions or variable load. (PG&E, Public Meeting Transcript, No. 31 at pp. 51–52, 178)

Similarly, CA IOUs noted a perceived disparity between DOE's statement in the preliminary analysis TSD chapter 2, where DOE stated that it ''believes that the energy saving potential of these technologies is already captured to some degree in the current test procedure,'' and chapter 4, where DOE stated that ''[t]echnologies that reduce energy use only under transient conditions, such as fluctuations in ambient temperature and humidity, periods of product loading, and frequent door openings, will not affect the measured CDEC. Therefore, DOE removed from consideration these technologies that do not affect or do not reduce CDEC during the tests.'' CA IOUs requested clarification of DOE's rationale for eliminating those technologies from consideration, and also requested that DOE include in its engineering analysis all technologies that can be measured in part by the test procedure, notably those that save energy at variable load or under fluctuating ambient conditions. (CA IOUs, No. 42 at p. 2) NEEA expressed its opinion that DOE had not yet adequately justified its lack of initiative in examining part-load technologies. (NEEA, No. 36 at p. 4)

Stakeholders questioned the ability of the DOE test procedure to reflect the performance of part-load technologies. In a written comment submitted jointly, ASAP and the Natural Resources Defense Council (NRDC) encouraged DOE to consider technologies that improve efficiency under part-load conditions in the engineering analysis, stating that DOE referenced in its test procedure NOPR the fact that units tested using ASHRAE 72, namely those with doors, experience variation in load due to the door opening requirements of the test. ASAP and NRDC mentioned that there is clearly a variation in refrigeration load during the test for this equipment, due to the door opening requirement. ASAP and NRDC added that, in its proposed test procedure, DOE also referred to transient load variation effects (76 FR 71601 (Nov. 24, 2010)). ASAP and NRDC stated that, if single-speed compressors cycle on and off during the test, there is likely opportunity for variable-speed compressors to reduce energy consumption by increasing the operating effectiveness of heat exchangers and reducing cycling losses. (ASAP and NRDC, No. 34 at pp. 1–2)

Interested parties also commented that it is important to distinguish between steady-state and full-load modes of operation, since equipment experiencing relatively constant loads is not necessarily operating at full load. ASAP and NRDC stated that if the compressor is cycling, this indicates that the equipment is operating at part load. ASAP and NRDC continued, stating that if a commercial refrigerator or freezer did operate at full load during a test, then it would not be able to maintain the necessary case temperature under the more extreme conditions that it would likely encounter in the field, posing a risk to food safety. Therefore, ASAP and NRDC stated, it is likely that manufacturers design equipment to meet a higher load than that experienced during a test, and that

[33] ANSI/ASHRAE Standard 72–2005. ''Method of Testing Commercial Refrigerators and Freezers.'' 2005. American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. Atlanta, GA.

technologies that improve part-load performance could reduce energy consumption for both open and doored cases. (ASAP and NRDC, No. 34 at p. 2) NEEA expressed a similar viewpoint, commenting that the door opening provision in ASHRAE 72 leads to load variation and that, even for open cases, it is unlikely that the refrigeration system is operating at full capacity during the test period, as this would make the system unable to meet load requirements and guarantee food safety under more extreme environmental conditions. (NEEA, No. 36 at p. 4) NEEA stated that, unless a refrigeration system is sized exactly for its operating load, and that load remains constant, there is good reason to examine part-load system performance. NEEA added that, since most refrigeration systems must perform under a variety of conditions, they will operate cyclically, leaving room for more-efficient operation during times of lower load. NEEA urged DOE to explore the use of variable-speed and variable-capacity components. (NEEA, No. 36 at p. 4)

DOE received comments regarding the treatment and modeling of specific part-load technologies. ASAP stated that, in its proposed energy conservation standards for residential refrigerators (75 FR 59470 (Sept. 27, 2010)), DOE had included variable-speed compressors as a design option, and that the residential refrigerators test procedure was also a steady-state test. ASAP asked why variable-speed compressors were considered for residential refrigerators but not for commercial refrigeration equipment. (ASAP, Public Meeting Transcript, No. 31 at p. 54) NEEA commented that variable-speed condenser fans and condenser fan motor controllers could enable improved part-load performance, and that screening them out due to test procedure limitations is shortsighted. (NEEA, No. 36 at p. 3) NEEA added that high-efficiency expansion valves are becoming much more prevalent in refrigeration systems, and that they should be included in the analysis. NEEA stated that savings associated with high-efficiency expansion valves may arise in conjunction with other technologies installed as part of a part-load package and that, while these energy savings may be small, this should be proven by analysis. (NEEA, No. 36 at p. 3) CA IOUs requested clarification on how variable-speed compressors and modulating capacity compressors [34] are covered in this rulemaking. CA IOUs stated that such compressor technologies did not appear to have been screened out or listed as an option, and appeared to have been included in the engineering analysis TSD chapter under the section discussing higher efficiency compressors. (CA IOUs, No. 42 at p. 2) Finally, ASAP and NRDC stated that the model used in the engineering analysis should be able to capture the potential benefits of technologies that improve part-load performance and that, if this is not the case, DOE should consider a different methodology. (ASAP and NRDC, No. 34 at p. 3)

After receiving these stakeholder comments, DOE reviewed its position on part-load and variable-capacity technologies, as articulated in chapter 2 of the preliminary analysis and test procedure NOPR publications (75 FR 71601 (Nov. 24, 2010)). DOE agrees there was a disparity between the preliminary analysis, in which DOE reiterated its position from the January 2009 final rule that part-load technologies could not be captured by the steady-state ASHRAE 72 method of test,[35] and the test procedure NOPR, in which DOE stated that the door opening and night curtain testing portions of the test would in fact create part-load conditions. 75 FR 71601 (Nov. 24, 2010). DOE believes that the position presented in the test procedure NOPR is accurate, as the variation in operating conditions introduced by door openings and the use of night curtains could create an opportunity for part-load technologies to produce quantifiable energy impacts. DOE revised its position after reviewing the test procedure established in the 2012 test procedure final rule (77 FR 10292 (Feb. 21, 2012)) and the energy consumption profile of equipment observed during testing conducted using the DOE test procedure. DOE believes the confusion arose due to the way in which the industry refers to the ASHRAE 72 method of test. As mentioned above, part load technologies allow a piece of commercial refrigeration equipment to respond to changes in refrigeration load that occur due to changes in ambient conditions or internal loads on the case. The ASHRAE 72 method of test prescribes a single fixed set of ambient conditions, so no major changes in refrigeration load are intentionally introduced through changes in ambient condition. Thus, the ASHRAE 72 method of test is often referred to as steady-state. However, as stated in the November 2010 test procedure NOPR, commercial refrigeration equipment tested using ASHRAE 72 experiences variation in refrigeration load due to door openings, drawing of the night curtain, and inherent compressor cycling that occur during the test. 77 FR 10308 (Feb. 21, 2012). Realizing this, DOE has revised its position and agrees with ASAP, NRDC, and NEEA that the nature of the ASHRAE 72 method of test, while conducted at fixed ambient operating conditions, is not strictly thermodynamically steady-state, as evidenced by compressor cycling and minor fluctuations in internal temperatures throughout the duration of the test. DOE also agrees with these stakeholders that the presence of compressor cycling demonstrates that commercial refrigeration units generally do not operate at full load during the test. From its discussions with manufacturers, DOE understands that most equipment can operate at temperatures lower than the equipment's given DOE rating temperature, and thus performance at the test procedure conditions would likely not constitute full-capacity operation.

In response to the stakeholder suggestions that DOE include specific part-load technologies in the NOPR analyses, DOE investigated the technologies referenced by these commenters. DOE researched the state of part-load and variable-capacity technologies such as fan motor controllers and variable-speed compressors through available manufacturer and component supplier literature, as well as through its discussions with manufacturers during interviews. DOE found that that many of these part-load technologies had not yet been developed for the commercial refrigeration equipment industry to the extent that they could be adopted by manufacturers in the near future. For example, while variable-speed compressors are indeed, as some stakeholders mentioned, prevalent in residential refrigeration applications, their availability for commercial application is very limited and is not applicable to many equipment types. Some technologies were also removed

[34] Variable-speed compressors are able to control the rate at which they operate in order to tailor their performance to varying conditions and thus reduce compressor cycling. Modulating capacity compressors, most commonly found in larger sizes used in compressor racks, allow for the volume of fluid being compressed by the moving pistons (and thus the throughput of the compressor) to be changed in response to load variations.

[35] U.S. Department of Energy–Office of Energy Efficiency and Renewable Energy. Preliminary Technical Support Document (TSD): Energy Conservation Program for Certain Commercial and Industrial Equipment: Commercial Refrigeration Equipment. Chapter 5, Engineering Analysis. March 2011. Washington, DC. *www.regulations.gov/#!documentDetail;D=EERE-2010-BT-STD-0003-0030.*

for functional purposes or because of concerns over food safety performance. Others were removed from consideration because they would not have measurable impacts under the test procedure. Therefore, while DOE did not screen out or preclude the analysis of part-load technologies, DOE did not utilize any of these technologies explicitly as design options in its engineering analysis. For further discussion of DOE's examination of these technologies, see chapters 3 through 5 of the NOPR TSD.

DOE reiterates that the design options that it has chosen for this particular analysis, and the design paths used in modeling the proposed standard levels, do not constitute a prescriptive design requirement. In other words, DOE does not claim that the combinations of design options presented in the engineering analysis form unique paths for achieving higher energy efficiency. Manufacturers are free to utilize any design features available to them in order to develop compliant units, provided that those units meet all the requirements for testing under the DOE test procedure and other applicable regulations. Thus, should manufacturers develop part-load features that produce quantifiable reductions in energy consumption under the DOE test procedure, they are not prohibited from taking advantage of those features, even if particular technologies were not modeled in the analysis for this rulemaking.

b. Technologies Relevant Only to Equipment With Doors

In chapter 3 of the preliminary analysis TSD, DOE mentioned three technologies that could apply only to doored equipment: anti-fog films, anti-sweat heater controllers, and high-performance doors. Not all of these technologies were considered in the preliminary engineering analysis, as some were screened out or removed from consideration on technical grounds. The following sections discuss stakeholder comments regarding these technologies.

Anti-Fog Films

Zero Zone stated that research by Southern California Edison indicated that anti-fog films do not allow for the reduction of anti-sweat heat. (Zero Zone, Public Meeting Transcript, No. 31 at p. 47)

DOE reviewed the available literature regarding anti-fog films, and understands that these films alone do not necessarily eliminate the need for anti-sweat heaters under many conditions, including high ambient humidity, as they cannot prevent condensation from forming on the outside of the case. This shortcoming of anti-fog films can present a major problem for customers. Discussions with manufacturers have led DOE to believe that alternative improvements in door construction provide the capacity to reduce anti-sweat heat without the drawbacks mentioned here. Because of these issues, DOE did not consider anti-fog films on transparent doors as a design option. For further discussion of this subject, see chapter 5 of the NOPR TSD.

Anti-Sweat Heater Controllers

During the April 2011 preliminary analysis public meeting, Zero Zone stated that anti-sweat controllers have the potential to save energy because the controllers would allow heaters to be designed with extra capacity for more humid climates. (Zero Zone, Public Meeting Transcript, No. 31 at p. 53) NEEA, ASAP, and NRDC all suggested DOE investigate Zero Zone's comment further, while the CA IOUs noted it may be possible to include a calculation method to address the benefit of these controllers. (NEEA, No. 36 at p. 3; ASAP and NRDC, No. 34 at p. 2; CA IOUs, No. 42 at pp. 2–4)

DOE raised the subject of anti-sweat heater controllers during its manufacturer interviews for this NOPR. Several manufacturers agreed that, within the context of the test procedure, anti-sweat heater controllers will effectively keep the power to anti-sweat heaters at the levels necessary for the test conditions. While anti-sweat controllers could also modulate the anti-sweat power further in the field to account for more or less extreme ambient conditions, a system equipped with anti-sweat heater controllers will not likely exhibit significantly different performance at test procedure conditions than will a unit with anti-sweat heaters tuned for constant 75 °F, 55 percent relative humidity conditions. Therefore, DOE did not consider anti-sweat heater controllers in the engineering analysis, as modeling these devices within the context of the test procedure would not yield appreciable energy savings over anti-sweat heaters that are properly sized for the test procedure ambient conditions. DOE notes that manufacturers that produce cases with anti-sweat heater controls for higher temperature and humidity environments may use anti-sweat heater controllers in the test procedure, however.

High-Performance Doors

Zero Zone also commented on high-performance doors, stating that when they were incentivized in California, retail stores used more energy because they had to set their air conditioning to a lower set point to avoid condensation. Zero Zone added that high-performance doors also sweat under conditions that are less favorable than the ASHRAE test conditions, and that DOE should evaluate technologies intended to be used for performance under actual conditions, not just under ASHRAE 72 test procedure conditions. Zero Zone stated that DOE should remove high-performance doors from the analysis. (Zero Zone, No. 37 at pp. 1 and 3)

During the NOPR engineering analysis, DOE reviewed its data for all design options, including high-performance doors. Transparent door performance was discussed at manufacturer interviews during the preliminary analysis and NOPR stages of the rulemaking, and the glass door designs considered in the engineering analysis are based on door models currently available on the market. The performance of these door designs was analyzed using Lawrence Berkeley National Laboratory's (LBNL's) WINDOW 5 software [36] in conjunction with the analyses for DOE's ongoing energy conservation standards rule for walk-in coolers and freezers, an equipment type in which the same models of glass display doors are often employed. While it is true that extreme conditions could adversely impact glass door performance, as mentioned by Zero Zone, the performance of the equipment for this analysis was based on the standardized ASHRAE 72 test conditions of 75°F and 55 percent relative humidity, ambient conditions that have been accepted by industry, the ASHRAE working group, and DOE as being generally representative of the environments typically encountered by commercial refrigeration equipment.

DOE believes that high-performance doors, such as those offered on the market by several door manufacturers and analyzed in this rulemaking, have the potential to save significant amounts of energy for transparent-door cases. Based on its market research and discussions with manufacturers, DOE has concluded that high-performance doors meet all the criteria for inclusion in its analysis, and has thus considered them as a design option in the engineering analysis.

[36] LBNL's WINDOW 5 software is a program designed for modeling the performance of windows, doors, and other fenestration devices.

c. Technologies Applicable Only to Equipment Without Doors

In chapter 3 of the preliminary analysis TSD, DOE mentioned two technologies, air-curtain design and night curtains, that could potentially be used to improve the efficiency of commercial refrigeration equipment without doors. Air curtain design was not considered in the preliminary engineering analysis, as it was screened out and removed from consideration because, according to the information available to DOE, advanced air curtain designs are still in research and development stages and are not yet available for use in the manufacture of commercial refrigeration equipment. The following sections address stakeholder comments regarding technologies applicable to equipment without doors.

Night Curtains

At the April 2011 preliminary analysis public meeting and in written comments, DOE received numerous comments from stakeholders regarding night curtains and their use in equipment without doors. CA IOUs agreed with DOE's decision to include night curtains in the analysis, but pointed out that such energy savings are only significant if the night curtains are properly deployed, and encouraged DOE to review and update its assumptions. (CA IOUs, No. 42 at pp. 4–5) Zero Zone also commented on the potential of night curtains to conserve energy, and stated that this technology should not be included in this rulemaking because there is no reasonable way to estimate how it will actually be used and because it cannot be used in 24-hour stores. (Zero Zone, No. 37 at p. 4) Southern Store Fixtures agreed with respect to these operational challenges, and also pointed out that CEC did not consider night curtains due to long PBPs, labor costs, and questions about the reliability of energy savings. (Southern Store Fixtures, No. 38 at p. 1; Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 42)

Southern Store Fixtures expressed concern that the use of night curtains on open cases could create design and operational challenges, potentially resulting in an inefficient case with product temperature issues and the potential for noncompliance with food safety regulations. (Southern Store Fixtures, No. 38 at p. 1) Southern Store Fixtures also noted that major design changes will be needed for cases with night curtains. Specifically, the evaporator coil and expansion devices currently used in open cases will be significantly oversized for use with night curtains; the number of fans needed and airflow characteristics will change; and lighting and temperature controls will need to be altered in converting a standard open case to accommodate night curtains. Cases with night curtains would also, Southern Store Fixtures stated, require duplication of controls to be able to operate with and without the curtains. (Southern Store Fixtures, No. 38 at p. 1) In summary, Southern Store Fixtures asserted that these issues would require a redesign of an open case for compatibility with night curtains and that, when considering the potential energy savings associated with the use of a night curtain, DOE should include the cost of performing such a redesign in its analysis. (Southern Store Fixtures, No. 38 at p. 1)

During the public meeting, Zero Zone observed that doored and open cases have a similar energy profile, and therefore, night curtains could be used as a design option for doored equipment as well. (Zero Zone, Public Meeting Transcript, No. 31 at pp. 40–41)

DOE acknowledges that the use of night curtains may not be consistent in the field. However, DOE's test procedures and energy conservation standards cannot control for equipment application and actual end use. Night curtains are an available technology for reducing energy consumption in commercial refrigeration equipment and DOE believes that including night curtains in its test procedure and energy conservation standards would allow manufacturers to take credit for the energy savings associated with this technology. In the 2012 test procedure final rule, DOE assumed 6 hours as the time period that night curtains would be implemented. 77 FR 10310 (Feb. 21, 2012). DOE believes that 6 hours conservatively represents the amount of time a night curtain would be drawn in a typical, non-24-hour store, when accounting for stocking and the fact that not all night curtains can be deployed at once. In addition, 6 hours is consistent with field data and studies that DOE has identified.[37] [38] [39]

With respect to Zero Zone's concern regarding the use of night curtains in 24-hour stores, DOE is not mandating the use of night curtains, but is simply accounting for them as one available energy efficiency technology. In addition, DOE notes that night curtains may be used in 24-hour stores during periods of low customer traffic. DOE further acknowledges that accounting for the energy savings associated with night curtains on open cases would, by definition, result in the setting of a more-stringent standard for open cases. DOE believes such a standard may encourage migration to the use of more-efficient doored cases for those cases used in contexts where the distinct utility of an open case is not required, while preserving the availability of open cases.

Regarding Southern Store Fixtures' comment about the cost-effectiveness of night curtains, DOE points out that the LCC analysis and NIA conducted by DOE are specifically aimed at assessing the cost-effectiveness of all the design options used to achieve greater energy efficiency.

DOE acknowledges Southern Store Fixtures' concerns regarding the costs associated with the need for equipment redesign due to presence of night curtains. After discussions with multiple manufacturers, DOE did not incorporate additional material costs and redesign costs associated with a secondary set of controls because most manufacturers do not implement this design according to information that DOE has obtained through market research and manufacturer interviews. DOE recognizes that individual manufacturers may select different design options and incur different conversion costs than those modeled by DOE. However, DOE attempts in its analysis to represent the choices most likely to be selected by the industry.

Southern Store Fixtures also commented that use of night curtains on open cases could create design and operational challenges that would result in inefficient cases with product temperature issues and the potential for noncompliance with food safety regulations. (Southern Store Fixtures, No. 38 at p. 1) DOE acknowledges that, as with any new technology, implementation of night curtains on open cases may require slight adjustments to equipment design to ensure the case operates efficiently and effectively. During manufacturer interviews for the MIA, data was collected by manufacturer (under confidentiality agreements) and, in aggregate, DOE's resulting conclusion was that night curtains would not result

[37] Southern California Edison, Refrigeration and Technology and Test Center, Energy Efficiency Division. *Effects of the Low Emissivity Shields on Performance and Power Use of a Refrigerated Display Case.* August 1997. Irwindale, CA. *www.econofrost.com/acrobat/sce_report_long.pdf.*

[38] Faramarzi, R. and Woodworth-Szieper, M. Effects of Low-E Shields on the Performance and Power Use of a Refrigerated Display Case. *ASHRAE Transactions.* 1999. 105(1).

[39] Portland Energy Conservation, Inc. *Query of Database of GrocerySmart Data.* Portland, OR. Received October 18, 2011. Last viewed July 23, 2011.

in the challenges discussed by Southern Store Fixtures. The prevalence of night curtains as retrofit options supports this conclusion as well. Thus, DOE believes that modifications can be made that allow open cases to be used with night curtains to achieve energy savings and improve temperature control, and has accounted for the cost to achieve these modifications in the MIA.

In response to Zero Zone's comment regarding the use of night curtains on doored cases, it is DOE's understanding that night curtains can be applied to all types of open cases (*i.e.,* vertical, semivertical, and horizontal), and that night curtains are most effective and commonly used on open cases rather than doored cases. DOE was not able to identify any public data regarding the use or potential for energy savings of night curtains on doored cases. Lacking a sound technical basis for including night curtains on doored cases in its analysis, DOE is hesitant to expand the definition of night curtain, as established in the 2012 test procedure final rule (77 FR 10296 (Feb. 21, 2012)), to explicitly include doored cases at this time. On January 6, 2011, DOE held a public meeting to discuss amendments to the DOE test procedure for commercial refrigeration equipment proposed in a NOPR DOE published on November 24, 2010. 75 FR 71596. At that January 2011 test procedure NOPR public meeting, True stated that it had seen night curtains implemented on doored cases and that this does save a minimal amount of energy, but that these minor savings did not justify consideration of night curtains in the DOE test procedure. (Docket No. EERE–BT–2010–TP–0034, True, Public Meeting Transcript, No. 19 at pp. 146–47) DOE agrees with True and believes that use of night curtains on doored cases will not significantly impact the daily energy consumption of the display case. Therefore, DOE did not incorporate the use of night curtains on cases with doors in the 2012 test procedure final rule. 77 FR 10297 (Feb. 21, 2012). Because night curtains on doored cases cannot be accounted for in the DOE test procedure, they are not included as a design option in the energy conservation standards analyses.

Strip Curtains

While not providing specific comments on the included technologies, Earthjustice questioned DOE's grounds for not considering strip curtains [40] in the analysis, stating that the criteria for considering design options in the analysis should be whether a technology is technologically feasible, economically justified, and reduces energy consumption, not whether it is currently used by manufacturers. (Earthjustice, Public Meeting Transcript, No. 31 at p. 36) Earthjustice stated that DOE should include strip curtains as a design option because these devices can be installed by equipment purchasers, and this illustrates the ease and practicality of their use. (Earthjustice, No. 35 at p. 4) True stated that manufacturers do not install strip curtains at the factory because customers can often receive a secondary rebate for installing strip curtains at the point of end use. (True, Public Meeting Transcript, No. 31 at p. 40)

While DOE understands that some end users purchase and install strip curtains on some open refrigerated display cases, DOE has no information as to the prevalence of use of these accessories. DOE has concerns that incorporating strip curtains into its analyses, and thus potentially into an amended standard, could impose restrictions similar to requiring the use of doors. Doing so would compromise one of the major utility factors of an open case. Namely, manufacturers have reported to DOE that the major utility of an open case is enhanced product visibility to the customer and easy access to product. Installation of a strip curtain would, by definition, inhibit both of these functions. Moreover, on technical grounds, strip curtains could potentially interfere with the operation of the existing air curtain in cases in which the air curtain is less than vertical. Thus, in response to the comment by Earthjustice, the latter issue described above is one of technical feasibility, while the former concern, reduction of utility, could make the consideration of strip curtains inconsistent with the requirements of EPCA. (42 U.S.C. 6295(o)(4) and 6316(e)(1)) While some end users may decide to install strip curtains on their own accord for their specific applications, DOE does not intend to explore their use as applicable to entire equipment classes.

d. Self-Contained Equipment Technologies

In chapter 3 of the preliminary analysis, DOE listed several technologies that are applicable only to the self-contained equipment classes. One of the technologies mentioned in the preliminary market and technology assessment, but not considered for analysis as a design option, was liquid suction heat exchangers (LSHXs).[41] NEEA commented that it did not see a reason for excluding LSHXs from the analysis for systems in which they are likely to be used, and that DOE should include them to the extent that the test procedure can be structured to capture their savings. (NEEA, No. 36 at p. 3) Southern Store Fixtures suggested that DOE investigate why CEC decided not to consider LSHXs because of potential refrigerant leaks. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 44)

During the NOPR stage of this rulemaking, DOE further investigated the subject of LSHXs as applicable to commercial refrigeration equipment. The information obtained by DOE indicated that LSHX performance depends on the specific design of a given system, as well as other factors, including refrigerant type, operating temperature, and ambient conditions. These factors all combine to determine whether an LSHX will reduce the energy consumption of a given system; in some systems, the use of an LSHX will actually increase energy consumption by introducing a greater pressure drop within the refrigeration circuit. DOE also heard comments from parties during manufacturer interviews and conferences concerning potential reliability and leakage issues such as those mentioned by Southern Store Fixtures. Because LSHXs may not improve efficiency in all systems and may experience reliability issues, DOE did not include LSHXs in its analysis. For more discussion of LSHXs, see chapter 3 of the NOPR TSD.

D. Screening Analysis

DOE uses four screening criteria to determine which design options are suitable for further consideration in a standards rulemaking. Namely, design options will be removed from consideration if they are not technologically feasible; are not practicable to manufacture, install, or service; have adverse impacts on product utility or product availability; or have adverse impacts on health or

[40] Strip curtains consist of a series of strips of transparent, flexible material (usually plastic) that hang down and cover the opening of a case without doors. This creates a physical barrier that reduces ambient air infiltration into the case while still allowing customers and employees to access the product contained inside.

[41] A liquid suction heat exchanger is a device intended to further cool the flow of liquid refrigerant entering the expansion valve from the condenser using the flow of gaseous refrigerant leaving the evaporator. The exchanger provides sub-cooling for the entering liquid by super-heating the exiting suction vapor. Hotter suction vapor is less susceptible to heat gains in the return piping to the compressor.

safety. 10 CFR part 430, subpart C, appendix A, sections (4)(a)(4) and (5)(b)

In written comments submitted following the April 2011 preliminary analysis public meeting, Zero Zone stated that DOE was correct in screening out a number of technologies, as any technology needs to be thoroughly researched and proven reliable before inclusion for consideration in a standards rulemaking. Zero Zone cited demand defrost as an example of an unproven technology that, if its use were encouraged by an energy conservation standard, would produce poor results in the field. (Zero Zone, No. 37 at p. 1) DOE agrees with Zero Zone's comment, as it is compelled by the screening criteria to ensure that any technology considered is feasible to implement; practicable to manufacture, install, and service; does not adversely impact utility or availability; and would not lead to adverse impacts on health or safety.

Based on all available information, DOE has concluded that: (1) All of the efficiency levels discussed in today's notice are technologically feasible; (2) equipment at these efficiency levels could be manufactured, installed, and serviced on a scale needed to serve the relevant markets; (3) these efficiency levels would not force manufacturers to use technologies that would adversely affect product utility or availability; and (4) these efficiency levels would not adversely affect consumer health or safety. Thus, the efficiency levels that DOE analyzed and discusses in this notice are all achievable through technology options that were ''screened in'' during the screening analysis.

E. Engineering Analysis

The engineering analysis determines the manufacturing costs of achieving increased efficiency or decreased energy consumption. DOE historically has used the following three methodologies to generate the manufacturing costs needed for its engineering analyses: (1) The design-option approach, which provides the incremental costs of adding to a baseline model design options that will improve its efficiency; (2) the efficiency-level approach, which provides the relative costs of achieving increases in energy efficiency levels, without regard to the particular design options used to achieve such increases; and (3) the cost-assessment (or reverse engineering) approach, which provides ''bottom-up'' manufacturing cost assessments for achieving various levels of increased efficiency, based on detailed data as to costs for parts and material, labor, shipping/packaging, and investment for models that operate at particular efficiency levels.

As discussed in the Framework document and preliminary analysis, DOE conducted the engineering analyses for this rulemaking using a design-option approach for commercial refrigeration equipment. The decision to use this approach was made due to several factors, including the wide variety of equipment analyzed, the lack of numerous levels of equipment efficiency currently available in the market, and the prevalence of relatively easily implementable energy-saving technologies applicable to this equipment. More specifically, DOE identified design options for analysis and used a combination of industry research and teardown-based cost modeling to determine manufacturing costs, then employed numerical modeling to determine the energy consumption for each combination of design options employed in increased equipment efficiency. DOE selected a set of 24 high-shipment classes, referred to as ''primary'' classes, to analyze directly in the engineering analysis. Additional details of the engineering analysis are available in chapter 5 of the NOPR TSD.

1. Representative Equipment for Analysis

a. Representative Unit Selection

In performing its engineering analysis, DOE selected representative units for each primary equipment class to serve as analysis points in the development of cost-efficiency curves. In selecting these units, DOE researched the offerings of major manufacturers to select models that were generally representative of the typical offerings produced within the given equipment class. Unit sizes, configurations, and features were based on high-shipment-volume designs prevalent in the market. Using this data, a set of specifications was developed defining a representative unit for each primary equipment class. These specifications include geometric dimensions, quantities of components (such as fans), operating temperatures, and other case features that are necessary to calculate energy consumption. Modifications to the units modeled were made as needed to ensure that those units were representative of typical models from industry, rather than a specific unit offered by one manufacturer. This process created a representative unit for each equipment class with typical characteristics for physical parameters (*e.g.,* volume, TDA), and minimum performance of energy-consuming components (*e.g.,* fans, lighting).

In its written comment following the preliminary analysis, Traulsen stated that DOE's choice of representative unit sizes for self-contained commercial refrigeration equipment with doors was generally suitable, but added that factors such as cabinet sizes, door quantities, and door types contribute significantly to overall equipment performance. Traulsen cautioned that a failure to factor these variables into the analysis could lead to unintended obsolescence of models with these features. (Traulsen, No. 45 at p. 2) DOE agrees with Traulsen that there are numerous design factors that can influence the performance of commercial refrigeration equipment. In selecting representative units for analysis, DOE sought unit sizes and configurations that generally represented the most commonly sold equipment on the market. The geometric features DOE considered included unit volume, height, length and width, number of doors, and door orientation. DOE avoided considering any features or unit configurations that could skew the analysis away from sound representation of the majority of units produced within a chosen equipment class. As a result, DOE believes that its analysis and resulting proposed standards are applicable and extensible to the range of covered equipment in each class. In response to Traulsen's concern, DOE wishes to point out that it is compelled by statute to avoid the elimination of features or utility currently present in equipment on the market, and that the obsolescence of specific unique equipment types would be included in this provision. (42 U.S.C. 6295(o)(2)(B)(IV), 6295(o)(4), and 6316(e)(1))

b. Baseline Models

DOE created a set of baseline design specifications for each equipment class analyzed directly in the engineering model. Each set of representative baseline unit specifications, when combined with the lowest technological level of each design option applicable to the given equipment class, defines the energy consumption and cost of the lowest efficiency equipment analyzed for that class. DOE established baseline specifications by reviewing available manufacturer data for equipment manufactured at the time of the analysis, and by selecting components and design features that were representative of the most basic models being manufactured at the time of the analysis. Chapter 5 of the NOPR TSD sets forth the specifications that DOE chose for each equipment class and

discusses baseline models in greater detail.

One complexity involved in developing an engineering baseline was due to the timing of the analysis, which was conducted in 2010 and 2011. Because the analysis was performed in proximity to the January 2009 final rule compliance date of January 1, 2012 (74 FR 1092 (Jan. 9, 2009)), and the compliance date for the standards established in EPCA of January 1, 2010 (42 U.S.C. 6313(c)(2)–(3)), it was difficult for DOE to establish a market baseline reflecting compliance with any specific set of standards. In particular, the equipment covered by the January 2009 final rule was not required to comply with amended standards until after the preliminary and NOPR analyses had been performed. As a result, DOE retained the engineering baseline and associated technologies used in its January 2009 final rule engineering analysis and expanded them to accommodate the new equipment classes covered by the standards initially established by EPCA. (42 U.S.C. 6313(c)(2)–(3)) DOE then added technologies to this baseline to develop its cost-efficiency curves. As a result, some of the engineering results represent units that are below the standard levels for equipment currently on the market and subject to the DOE's existing standards. 10 CFR 431.66 However, in its LCC and other downstream analyses, DOE accounted for this fact by utilizing a standards baseline as the minimum efficiency level examined, thereby truncating the engineering design option levels so that the lowest efficiency point analyzed corresponded to the current standard level with which that particular piece of equipment would have to comply. The exact procedure is described in section IV.H.1, and additional details are provided in chapter 8 of NOPR TSD.

2. Design Options

After conducting the screening analysis and removing from consideration technologies that did not warrant inclusion on technical grounds, DOE included the remaining technologies as design options in the energy consumption model for its NOPR engineering analysis:

- Higher efficiency lighting and occupancy sensors for VOP, SVO, and SOC equipment families (horizontal fixtures);
- Higher efficiency lighting and occupancy sensors for VCT and PD equipment families (vertical fixtures);
- Improved evaporator coil design;
- Higher efficiency evaporator fan motors;
- Improved case insulation;
- Improved doors for VCT equipment family, low temperature and ice-cream temperature (hinged);
- Improved doors for VCT and PD equipment families, medium temperature (hinged);
- Improved doors for HCT equipment family, low temperature and ice-cream temperature (sliding);
- Improved doors for HCT equipment family, medium temperature (sliding);
- Improved doors for SOC equipment family, medium temperature (sliding);
- Improved condenser coil design (for self-contained equipment only);
- Higher efficiency condenser fan motors (for self-contained equipment only);
- Higher efficiency compressors (for self-contained equipment only); and
- Night curtains (equipment without doors only).

3. Refrigerants

For the preliminary analysis, DOE considered two refrigerants, hydrofluorocarbons (HFCs) R–134a and R–404a, because these are the industry-standard choices for use in the vast majority of commercial refrigeration equipment covered by this rulemaking. This selection was consistent with the modeling performed in the January 2009 final rule, which was based on industry research and stakeholder feedback at that time. After the publication of the preliminary analysis, DOE received several comments on potential future issues relating to refrigerants for this equipment. Emerson noted that possible future EPA actions could prohibit certain refrigerants, which would reduce equipment efficiency, and suggested that if EPA is going to use total emissions as the basis for Significant New Alternatives Policy (SNAP) [42] regulations, then energy efficiency must also be considered by the EPA when making those determinations. However, Emerson conceded that the discussion of potential action by EPA was speculative at this point. (Emerson, Public Meeting Transcript, No. 31 at pp. 48, 157–58) Similarly, True observed that EPA proposals could result in the banning of R134a and R404a, and that while there are replacements for R134a, it would be difficult to replace R404a. (True, Public Meeting Transcript, No. 31 at p. 154) However, AHRI remarked that it believed that EPA was only considering NRDC's petition for removal of R134a [43] from the list of acceptable substitutes under the SNAP program in the context of automotive air-conditioning applications, and that EPA is not currently seeking to restrict the use of R134a in the commercial refrigeration industry. (AHRI, Public Meeting Transcript, No. 31 at pp. 155–56) True also pointed out that the removal of HFCs from remote condensing equipment would likely necessitate a total system design and a shift toward cascade equipment. (True, Public Meeting Transcript, No. 31 at pp. 152–53) However, True stated that 90 percent of its market is for self-contained equipment, and that 85 percent of its products could be converted to alternative refrigerants with minimal cost increases and efficiency losses. (True, Public Meeting Transcript, No. 31 at p. 155)

Commenters also provided information regarding the performance and regulatory status of specific alternative refrigerants. True noted that it had tested a large amount of isobutene and propane-driven equipment, which exhibited an efficiency gain of 7 to 11 percent in smaller equipment. True stated that the use of these alternative refrigerants was not overly cost burdensome because of the recent increase in the cost of HFC refrigerants, but that they could not be used on larger equipment because of SNAP regulations involving refrigerant charge levels. (True, Public Meeting Transcript, No. 31 at pp. 151–52, 155) However, True added, the need to address flammability concerns in the interest of safety could result in significant cost increases for certain components. True further stated that the EPA SNAP program's discussion of allowing 150-gram charges of propane as a refrigerant in self-contained commercial applications would not be a factor that could prevent use of these refrigerants, and that propane is not currently excluded from use by most building codes. (True, Public Meeting Transcript, No. 31 at p. 152, 159) Emerson asked whether building codes could be changed to allow for numerous 150-gram charges within a supermarket. (Emerson, Public Meeting Transcript, No. 31 at p. 158) Coca-Cola mentioned that it had

[42] SNAP is EPA's program to evaluate and regulate substitutes for the ozone-depleting chemicals that are being phased out under the stratospheric ozone protection provisions of the Clean Air Act. For more information, please see: *www.epa.gov/ozone/snap/*.

[43] In May 2010, the Natural Resources Defense Council petitioned the EPA to remove HFC–134a from the list of acceptable substitutes under the SNAP program. In February 2011, the EPA concluded that NRDC's petition was complete with respect to the end use of motor vehicle air conditioners, and expressed its intent to begin a rulemaking on the topic. For more information, please see: *www.epa.gov/ozone/downloads/NRDC_petition_responses.pdf*.

selected transcritical[44] CO_2 as an alternative for applications in the United States, but could not provide efficiency data. (Coca-Cola, Public Meeting Transcript, No. 31 at p. 157) NEEA noted that Daikin Industries, Ltd., the world's largest central air conditioner manufacturer, was progressing toward using only non-halogen refrigerants in its products. (NEEA, Public Meeting Transcript, No. 31 at p. 161) AHRI encouraged DOE to not assume constant refrigerant prices over the analysis period it considers because legislation has been introduced that could result in the unavailability of HFC refrigerants and lead to significant price increases. (AHRI, No. 43 at p. 3)

In its written comments, NEEA provided an alternative viewpoint, stating that it did not believe refrigerant issues are significant for this rulemaking. This is because, according to NEEA, refrigerant issues (referring to past phase-outs of CFCs, HCFCs, and other refrigerant types used in the past) have been known for almost 20 years. Historically, these issues have included the phase-outs of chlorofluorocarbons (CFCs) and HFCs in accordance with the Montreal Protocol.[45] Manufacturers have contended with these issues over time, and understand the design changes needed to adapt to new refrigerants. NEEA added that shifts to different refrigerants will have to be made regardless of the course that any one rulemaking takes. Further, NEEA pointed to the statements by several manufacturers that a reduction of system efficiency due to implementation of new refrigerants should not be assumed. NEEA agreed with these manufacturers and suggested that it is likely that these parties will resolve refrigerant issues in a way that will not compromise efficiency and that will not be cost-prohibitive. In conclusion, NEEA stated that refrigerant issues are not new and that the outcome of the standards-setting process is not likely to affect how manufacturers resolve these issues. (NEEA, No. 36 at pp. 6–7)

While future regulations may cap or eliminate the use of the currently prevalent refrigerants, and proposed legislation, such as the American Clean Energy and Security Act of 2009,[46] has included HFC phase-downs, DOE does not speculate on the impact of proposed legislation in current rulemaking analyses. Additionally, as mentioned above, many low global warming potential (GWP) refrigerants, such as CO_2 and propane, are being introduced to the market, and use of these new refrigerants may influence the cost and efficiency of equipment. However, DOE is not in a position to predict future trends of the refrigerants market or the performance of alternative refrigerants, and any analysis conducted at this time would be speculative. Consequently, DOE is not considering the potential effects of alternative refrigerants or current or future legislation on refrigerants within the scope of this rulemaking. Instead, DOE will continue to model equipment as currently designed for the U.S. market, utilizing the most common HFC refrigerants, R–134A and R–404A, accepted and broadly used by the industry. To the extent that there has been experience within the industry, domestically or internationally, with the use of alternative low-GWP refrigerants, DOE requests any available information, specifically cost and efficiency information relating to use of alternative refrigerants. DOE acknowledges that there are government-wide efforts to reduce emissions of HFCs, and such actions are being pursued both through international diplomacy as well as domestic actions. DOE, in concert with other relevant agencies, will continue to work with industry and other stakeholders to identify safer and more sustainable alternatives to HFCs while evaluating energy efficiency standards for this equipment.

4. Cost Assessment Methodology

During the preliminary analysis, DOE developed costs for the core case structure of the representative units it modeled, based on cost estimates performed in the analysis for the January 2009 final rule. For more information, see chapter 5 of the preliminary analysis TSD, pp. 5–3 to 5–8. DOE also developed costs for the design option levels implemented, based on publicly available information and price quotes provided during manufacturer interviews. These costs were combined in the engineering cost model based on the specifications of a given modeled unit in order to yield manufacturer production cost (MPC) estimates for each representative unit at each configuration modeled. At the preliminary analysis rulemaking stage, DOE's component cost estimates were based on data developed from manufacturer interviews, estimates from the January 2009 final rule, and publicly available cost information. During the NOPR analysis, DOE augmented this information with data from physical teardowns of commercial refrigeration equipment currently on the market.

During the development of the engineering analysis for this NOPR, DOE interviewed manufacturers to gain insight into the commercial refrigeration industry, and to request feedback on the engineering analysis methodology, data, and assumptions that DOE used. Based on the information gathered from these interviews, along with the information obtained through a teardown analysis and public comments, DOE refined the engineering cost model. Next, DOE derived manufacturer markups using publicly available commercial refrigeration industry financial data, in conjunction with manufacturer feedback. The markups were used to convert the MPCs into MSPs. Further discussion of the comments received and the analytical methodology used is presented in the following subsections. For additional detail, see chapter 5 of the NOPR TSD.

a. Teardown Analysis

In the preliminary analysis TSD, DOE expressed its intent to update its core case cost estimates, which were at that time developed based on estimates from the January 2009 final rule, through performing physical teardowns of selected units. These core case costs consist of the costs to manufacture the structural members, insulation, shelving, wiring, etc., but not the costs associated with the components that could directly affect energy consumption, which were considered collectively as design options and served as one of many inputs to the engineering cost model. DOE first selected representative units for physical teardown based on available offerings from the catalogs of major manufacturers. DOE selected units that had sizes and feature sets similar to those of the representative units modeled in the engineering analytical model. DOE selected units for teardown representing each of the proposed equipment families, with the exception of the HZO family.[47] The units were

[44] A transcritical system is one in which the refrigerant changes phase during the course of the refrigeration cycle.

[45] The Montreal Protocol on Substances that Deplete the Ozone Layer is an international treaty that was designed to protect the ozone layer by phasing out many ozone depleting substances.

[46] Colloquially known as the Waxman-Markey Bill, this legislation (H.R. 2454) would have established an emissions cap and trade system in the United States. It was passed by the House of Representatives in June 2009, but was tabled by the Senate. For more information, please see *http://thomas.loc.gov/cgi-bin/bdquery/z?d111:H.R.2454:*.

[47] The reason why no HZO units were torn down was that the HZO family is the least complex of the equipment classes with respect to its construction. DOE felt that there was no additional data which could be gained from teardown of this equipment

Continued

then disassembled into their base components, and DOE estimated the materials, processes, and labor required for the manufacture of each individual component. This process is referred to as a ''physical teardown.'' Using the data gathered from the physical teardowns, DOE characterized each component according to its weight, dimensions, material, quantity, and the manufacturing processes used to fabricate and assemble it. These component data were then entered into a spreadsheet and organized by system and subsystem levels to produce a comprehensive bill of materials (BOM) for each unit analyzed through the physical teardown process.

The physical teardowns allowed DOE to identify the technologies, designs, and manufacturing techniques that manufacturers incorporated into the equipment that DOE analyzed. The result of each teardown was a structured BOM, incorporating all materials, components, and fasteners, classified as either raw materials or purchased parts and assemblies, and characterizing the materials and components by weight, manufacturing processes used, dimensions, material, and quantity. The BOMs from the teardown analysis were then modified, and the results used as one of the inputs to the cost model to calculate the MPC for each representative unit modeled. The MPCs resulting from the teardowns were then used to develop an industry average MPC for each equipment class analyzed. See chapter 5 of the NOPR TSD for more details on the teardown analysis.

b. Cost Model

The cost model for this rulemaking was divided into two parts. The first of these was a standalone core case cost model, based on physical teardowns, that was used for developing the core case costs for the 24 directly analyzed equipment classes. This cost model is a spreadsheet that converts the materials and components in the BOMs from the teardowns units into MPC dollar values based on the price of materials, average labor rates associated with manufacturing and assembling, and the cost of overhead and depreciation, as determined based on manufacturer interviews and DOE expertise. To convert the information in the BOMs to dollar values, DOE collected information on labor rates, tooling costs, raw material prices, and other factors. For purchased parts, the cost model estimates the purchase price based on volume-variable price quotations and detailed discussions with manufacturers and component suppliers. For fabricated parts, the prices of raw metal materials (*e.g.,* tube, sheet metal) are estimated based on 5-year averages calculated from cost estimates obtained from sources including the *American Metal Market* and manufacturer interviews. The cost of transforming the intermediate materials into finished parts is estimated based on current industry pricing.

The function of the cost model described above is solely to convert the results of the physical teardown analysis into core case costs. To achieve this, components immaterial to the core case cost (lighting, compressors, fans, etc.) were removed from the BOMs, leaving the cost model to generate values for the core case costs for each of the teardown points. Then, these teardown-based core case BOMs were used to develop a ''parameterized'' computational cost model, which allows a user to virtually manipulate case parameters such as height, length, insulation thickness, and number of doors by inputting different numerical values for these features to produce new cost estimates. For example, a user could start with the teardown data for a two-door case and expand the model of the case computationally to produce a cost estimate for a three-door case by changing the parameter representing the number of doors. This parameterized model, coupled with the design specifications chosen for each representative unit modeled in the engineering analysis, was used to develop core case MPC cost estimates for each of the 24 directly analyzed representative units. These values served as one of several inputs to the engineering cost model.

The engineering analytical model, as implemented by DOE in a Microsoft Excel spreadsheet, also incorporated the engineering cost model, the second cost modeling tool used in this analysis. In the engineering cost model, core case costs developed based on physical teardowns were one input, and costs of the additional components required for a complete piece of equipment (design options) were another input. The two inputs were added together to arrive at an overall MPC value for each equipment class. Based on the configuration of the system at a given design option level, the appropriate design option costs were added to the core case cost to reflect the cost of the entire system. Costs for design options were calculated based on price quotes from publicly available sources and discussions with commercial refrigeration equipment manufacturers. Chapter 5 of the NOPR TSD describes DOE's cost model and definitions, assumptions, data sources, and estimates.

Some stakeholders expressed concern with the potential variability in prices that served as inputs to the cost model. NEEA suggested that using a forecast of materials futures market pricing might be a better approach than using a historical average, and Hill Phoenix questioned whether the 2009 cost model had been updated, as its cost structure had significantly increased since that time. (NEEA, Public Meeting Transcript, No. 31 at pp. 85–86; Hill Phoenix, Public Meeting Transcript, No. 31 at p. 84) Southern Store Fixtures agreed with Hill Phoenix, and noted that it would be advisable to use 2011 costs for equipment that complies with the January 2009 final rule, instead of a current market baseline. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 86–87)

Regarding the comments from Hill Phoenix and Southern Store Fixtures, DOE has updated all of its cost modeling information. This information includes component costs, which were based on public-source data and estimates provided during manufacturer interviews, and core case costs, which were developed based on DOE's teardown analysis performed during the NOPR stage of the rulemaking. In response to Southern Store Fixtures' comment that DOE should use 2011 costs in its analyses for equipment that complies with the January 2009 final rule, DOE believes that materials prices depend on broader market conditions and are unlikely to be influenced by equipment that complies with the January 2009 final rule. DOE calculates the materials cost based on price information gathered from the market, and uses a methodology based on the Bureau of Labor Statistics (BLS) Producer Price Indices to account for fluctuations in materials prices and processing costs. Regarding NEEA's suggestion that using a forecast of materials futures market pricing might be preferable to using an historical average, DOE believes that such price forecasting is speculative, and therefore DOE has continued to use actual prices and averages thereof as the basis for its analyses.

c. Manufacturer Production Cost

Once the cost estimates for all the components of each representative unit, including the core case cost and design option costs, were finalized, DOE totaled the costs in the engineering cost model to calculate the MPC. DOE estimated the MPC at each efficiency

which would not have already been captured by the teardowns of other units.

level considered for each directly analyzed equipment class, from the baseline through the max-tech. After incorporating all of the assumptions into the cost model, DOE calculated the percentages attributable to each element of total production cost (*i.e.,* materials, labor, depreciation, and overhead). DOE used these production cost percentages in the MIA (see section IV.K). DOE revised the cost model assumptions used for the preliminary analysis based on teardown analysis, updated pricing, and additional manufacturer feedback, which resulted in refined MPCs and production cost percentages. DOE calculated the average equipment cost percentages by equipment class. Chapter 5 of the NOPR TSD presents DOE's estimates of the MPCs for this rulemaking, along with the different percentages attributable to each element of the production costs that comprise the total MPC.

d. Cost-Efficiency Relationship

The result of the engineering analysis is a cost-efficiency relationship. DOE created a separate relationship for each input capacity associated with each commercial refrigeration equipment class examined for this NOPR. DOE also created 24 cost-efficiency curves, representing the cost-efficiency relationship for each commercial refrigeration equipment class.

To develop cost-efficiency relationships for commercial refrigeration equipment, DOE examined the cost differential to move from one design option to the next for manufacturers. DOE used the results of teardowns to develop core case costs for the equipment classes modeled, and added those results to costs for design options developed from publicly available pricing information and manufacturer interviews. Additional details on how DOE developed the cost-efficiency relationships and related results are available in the chapter 5 of the NOPR TSD. Chapter 5 of the NOPR TSD also presents these cost-efficiency curves in the form of energy efficiency versus MPC. After the publication of the preliminary analysis, several stakeholders provided input and feedback regarding DOE's cost estimates, specifically regarding insulation costs, LED lighting costs, and DOE's methodology for estimating manufacturer overhead in its cost model. The following sections address these stakeholder comments and concerns.

Insulation Cost Specifications

Several stakeholders submitted comments regarding DOE's estimated costs and specifications for insulation. Traulsen observed that DOE's estimates for the number of foaming fixtures [48] present in a manufacturing facility and units per year are high if they are meant to represent the production of a base model by an average manufacturer. (Traulsen, No. 45 at p. 4) Zero Zone noted that the material costs for increasing foamed-in-place panels are not trivial, and that its foam cost associated with adding a half inch of insulation to a five-door case is approximately $25. (Zero Zone, No. 37 at p. 3) Zero Zone also commented that the engineering costs modeled by DOE do not include any redesign costs that are incurred as wall thickness changes, and that foamed-in-place sheet metal panels are an integral part of the structural design of cases. However, Zero Zone expressed concern that the ability of vacuum insulated panels to perform as structural members has not been verified and should be validated before vacuum insulated panels are included in the analysis. (Zero Zone, No. 37 at p. 3) Zero Zone concluded by stating that increased foam panel thickness should be dropped from the analysis because DOE had not collected sufficient, accurate cost information regarding this design option. (Zero Zone, No. 37 at p. 3)

DOE considered these comments in revising its implementation of improved insulation during the NOPR analyses. Regarding Traulsen's statement, DOE based its estimates of costs and specifications on discussions with manufacturers and site visits of manufacturing facilities and, while DOE understands the variability in manufacturing practices and equipment utilization that exists across manufacturers and product line offerings, DOE believes those estimates are sound. DOE took into account the comment from Zero Zone regarding additional foam costs and, in response, accounted for the differential cost of additional foam due to changes in wall thickness in its engineering analysis for the NOPR. However, regarding Zero Zone's assertion that redesign costs are not accounted for in the engineering analysis, the engineering model does include an estimate of engineering cost to account for the design efforts that must be incurred in developing a case with higher wall thickness. DOE has also discussed the implementation of vacuum insulated panels with manufacturers, cross-referenced its data with other rulemaking analyses in which vacuum insulated panels were used, and revised its data accordingly. As a result, DOE believes that its estimates and assumptions for improved insulation are valid, and has retained those design options for the NOPR.

Light-Emitting Diode Cost Specifications

Stakeholders also provided feedback on pricing and performance related to DOE's LED specifications in the engineering model. ASAP and NRDC stated that DOE should not assume LED prices remain constant because LEDs are an emerging technology and will likely experience a dramatic price decline in the near future. The comment cited DOE's 2011 Solid-State Lighting Research and Development (R&D) Multi-Year Program Plan (MYPP),[49] which projects that, between 2010 and 2015, prices of some LEDs will decrease by 85 percent, while LED lighting will experience a significant increase in efficacy during the same period. (ASAP and NRDC, No. 34 at p. 3) These stakeholders added that it is important for DOE to capture cost decreases not only during the analysis period (2017–2046), but prior to the proposed 2017 compliance date for the amended standards considered in this rulemaking as well, stating that a price estimate for 2017 will be needed for the LCC calculations to be accurate. ASAP and NRDC stated that, according to the DOE solid-state lighting documents referenced, if today's LED prices are held constant through the 2017 compliance date, the result will be a misrepresentation in the LCC of the value of potential LED energy savings; as a result, ASAP and NRDC urged DOE to develop cost estimates reflecting this price decline. (ASAP and NRDC, No. 34 at p. 3) NEEA referenced the DOE 2011 MYPP as well, and agreed that it believed that DOE is grossly overestimating the future cost of LED lighting. (NEEA, No. 36 at pp. 3–4)

DOE agrees with these stakeholders that forecasts of the LED lighting industry, including those performed by DOE, suggest that LED lighting is an emerging technology that will continue to experience significant price decreases in coming years. For this reason, to capture the anticipated cost reduction in LED fixtures in the analyses for this

[48] Foaming fixtures are pieces of equipment consisting of molds to guide the injection of foamed-in-place insulation so that that the foam takes a desired shape once hardened.

[49] The DOE Solid-State Lighting Research and Development Multi-Year Program Plan outlines DOE's research goals and planned methodologies with respect to the advancement of solid-state lighting technologies in the United States. The complete document is available at: *http://apps1.eere.energy.gov/buildings/publications/pdfs/ssl/ssl_mypp2011_web.pdf.*

rulemaking, DOE incorporated price projections from its Solid-State Lighting Program into its MPC values for the primary equipment classes. The price projections for LED case lighting were developed from projections developed for the DOE Solid-State Lighting Program 2012 report, *Energy Savings Potential of Solid-State Lighting in General Illumination Applications 2010 to 2030* (''the energy savings report'').[50] In the appendix of this report, price projections from 2010 to 2030 were provided in ($/klm) for LED lamps and LED luminaires. DOE analyzed the models used in the Solid-State Lighting Program work and determined that the LED luminaire projection would serve as an appropriate proxy for a cost projection to apply to refrigerated case LEDs.

The price projections presented in the Solid-State Lighting Program's energy savings report are based on the DOE's 2011 MYPP. The MYPP is developed based on input from manufacturers, researchers, and other industry experts. This input is collected by the DOE at annual roundtable meetings and conferences. The projections are based on expectations dependent on the continued investment into solid-state lighting by the DOE.

DOE incorporated the price projection trends from the energy savings report into its engineering analysis by using the data to develop a curve of decreasing LED prices normalized to a base year. That base year corresponded to the year when LED price data was collected for the NOPR analyses of this rulemaking from catalogs, manufacturer interviews, and other sources. DOE started with this commercial refrigeration equipment-specific LED cost data and then applied the anticipated trend from the energy savings report to forecast the projected cost of LED fixtures for commercial refrigeration equipment at the time of compliance with the proposed rule (2017). These 2017 cost figures were incorporated into the engineering analysis as comprising the LED cost portions of the MPCs for the primary equipment classes. Table IV.1 shows the normalized LED price deflators used in this NOPR analysis.

TABLE IV.1—LED PRICE DEFLATORS USED IN THE NOPR ANALYSIS

Year	Normalized to 2013	Normalized to 2017	Year	Normalized to 2013	Normalized to 2017
2010	2.998	5.652	2021	0.361	0.681
2011	1.799	3.392	2022	0.335	0.631
2012	1.285	2.423	2023	0.312	0.588
2013	1.000	1.885	2024	0.292	0.550
2014	0.819	1.543	2025	0.274	0.517
2015	0.693	1.306	2026	0.259	0.488
2016	0.601	1.133	2027	0.245	0.462
2017	0.530	1.000	2028	0.232	0.438
2018	0.475	0.895	2029	0.221	0.417
2019	0.430	0.810	2030	0.211	0.398
2020	0.393	0.740	2031–2046*	0.211	0.398

*DOE did not have data available to project prices beyond 2030. Therefore, for the NOPR analysis, it was assumed that the LED prices stay constant after 2030.

The LCC analysis (section IV.H) was carried out with the engineering numbers that account for the 2017 prices of LED luminaires. The reduction in price of LED luminaires from 2018 through 2030 was taken into account in the NIA (section IV.I). The cost reductions were calculated for each year from 2018 through 2030 and subtracted from the equipment costs in the NIA. The reduction in lighting maintenance costs[51] due to reduction in LED prices for equipment installed in 2018 to 2030 were also calculated and appropriately deducted from the lighting maintenance costs.

Manufacturer Overhead Costs

NEEA commented that, in the DOE rulemaking on distribution transformers, manufacturers had stated that they do not apply overhead to material costs, but to labor costs only, and that the application of overhead to both of these cost components can have a major impact on MPCs, depending on how much of the product cost is attributed to each component. (NEEA, Public Meeting Transcript, No. 31 at pp. 70–71) In another comment, NEEA elaborated on this statement, adding that during the distribution transformers public meeting, manufacturers stated that they do not apply factory overhead rates to the cost of materials, but only to labor. NEEA went on to suggest that DOE use this methodology to the extent applicable to commercial refrigeration equipment, and adjust its cost estimation methods to take this approach into account. (NEEA, No. 36 at pp. 4–5)

In DOE's cost model for commercial refrigeration equipment, the following three overhead components are dependent on labor or materials: utilities, property tax, and insurance. The cost of utilities is a function of equipment costs only (no labor included) and is calculated using a ratio derived in the past from U.S. Securities and Exchange Commission (SEC) 10–K forms for appliance manufacturers.[52] The ratios for property tax and insurance costs are also based on past 10–K form analysis, but are dependent on overall unit costs (*i.e.,* cost of goods sold). Altogether, these three components represent only about 3 percent of the total cost of a unit, so whether they are based on labor and materials or on labor only, they are unlikely to have a significant effect on MPCs, especially on an incremental cost basis. DOE welcomes suggestions on how to improve its methodology and hopes that stakeholders can provide DOE with documentation for improved insurance, property tax, and utility calculations. In particular, DOE would welcome nationwide data on property tax rates based on property, plant, and

[50] Navigant Consulting, Inc., *Energy Savings Potential for Solid-State Lighting in General Illumination Applications.* 2012. Prepared for the U.S. Department of Energy—Office of Energy Efficiency and Renewable Energy Building Technologies Office, Washington, DC.

[51] Discussion related to lighting maintenance costs for commercial refrigeration equipment can be found in section IV.H.3, and a more detailed explanation can be found in chapter 8 of the NOPR TSD.

[52] A searchable directory of SEC filings is available at: *www.sec.gov/edgar/searchedgar/companysearch.html.*

equipment valuations; average power consumption for conditioned as well as unconditioned factory spaces; and insurance rates and how they are applied.

For the distribution transformers energy conservation standards rulemaking, DOE did not apply overhead rates to labor—overhead was only applied to direct material production costs. For more details on material and labor inputs for distribution transformers, see chapter 5 of the TSD for the distribution transformers preliminary analysis (*www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/transformer_preanalysis_ch5.pdf*). Furthermore, due to the different industries in which distribution transformer and commercial refrigeration manufacturers operate, the same cost model may not necessarily be applicable to both.

e. Manufacturer Markup

To account for manufacturers' non-production costs and profit margin, DOE applies a non-production cost multiplier (the manufacturer markup) to the full MPC. The resulting MSP is the price at which the manufacturer can recover all production and non-production costs and earn a profit. To meet new or amended energy conservation standards, manufacturers often introduce design changes to their product lines that result in increased MPCs. Depending on the competitive environment for this equipment, some or all of the increased production costs may be passed from manufacturers to retailers and eventually to customers in the form of higher purchase prices. The MSP should be high enough to recover the full cost of the equipment (*i.e.,* full production and non-production costs) and yield a profit. The manufacturer markup has an important bearing on profitability. A high markup under a standards scenario suggests manufacturers can readily pass along the increased variable costs and some of the capital and equipment conversion costs (one-time expenditures) to customers. A low markup suggests that manufacturers will not be able to recover as much of the necessary investment in plant and equipment.

To calculate the manufacturer markups, DOE used 10–K reports submitted to the SEC by the six publicly owned commercial refrigeration equipment companies in the United States. (SEC 10–K reports can be found using the search database available at *www.sec.gov/edgar/searchedgar/webusers.htm*.) The financial figures necessary for calculating the manufacturer markup are net sales, costs of sales, and gross profit. DOE averaged the financial figures spanning the years from 2004 to 2010 [53] to calculate the markups. For commercial refrigeration equipment, to calculate the average gross profit margin for the periods analyzed for each firm, DOE summed the gross profit earned during all of the aforementioned years and then divided the result by the sum of the net sales for those years. DOE presented the calculated markups to manufacturers during the manufacturer interviews for the NOPR (see section IV.E.4.g). DOE considered manufacturer feedback to supplement the calculated markup, and refined the markup to better reflect the commercial refrigeration market. DOE developed the manufacturer markup by weighting the feedback from manufacturers on a market share basis because manufacturers with larger market shares more significantly affect the market average. DOE used a constant markup to reflect the MSPs of both the baseline equipment and higher efficiency equipment. DOE used this approach because amended standards may transform high-efficiency equipment, which currently is considered to be premium equipment, into baseline equipment. See chapter 5 of the NOPR TSD for more details about the manufacturer markup calculation.

f. Shipping Costs

The final component of the MSP after the MPC and manufacturer markup is the shipping cost associated with moving the equipment from the factory to the first point on the distribution chain. During interviews, manufacturers stated that the specific party (manufacturer or buyer) that incurs that cost for a given shipment may vary based on the terms of the sale, the type of account, the manufacturer's own business practices, and other factors. However, for consistency, DOE includes shipping costs as a component of MSP. In calculating the shipping costs for use in its analysis, DOE first gathered estimates of the cost to ship a full trailer of manufactured equipment an average distance in the United States, generally representative of the distance from a typical manufacturing facility to the first point on the distribution chain. DOE then used representative unit sizes to calculate a volume for each unit. Along with the dimensions of a shipping trailer and a loading factor to account for inefficiencies in packing, DOE used this cost and volume information to develop an average shipping cost for each equipment class directly analyzed.

g. Manufacturer Interviews

Throughout the rulemaking process, DOE has sought and continues to seek feedback and insight from interested parties that would improve the information used in its analyses. DOE interviewed manufacturers as a part of the NOPR MIA (see section IV.K). During the interviews, DOE sought feedback on all aspects of its analyses for commercial refrigeration equipment. For the engineering analysis, DOE discussed the analytical assumptions and estimates, cost model, and cost-efficiency curves with manufacturers. DOE considered all of the information learned from manufacturers when refining the cost model and assumptions. However, DOE incorporated equipment and manufacturing process figures into the analysis as averages to avoid disclosing sensitive information about individual manufacturers' equipment or manufacturing processes. More details about the manufacturer interviews are contained in chapter 12 of the NOPR TSD.

5. Energy Consumption Model

The energy consumption model is the second key analytical model used in constructing cost-efficiency curves. This model estimates the daily energy consumption, calculated using the DOE test procedure, of commercial refrigeration equipment in kilowatt-hours at various performance levels using a design-option approach. In this methodology, a unit is initially modeled at a baseline level of performance, and higher-efficiency technologies, referred to as design options, are then implemented and modeled to produce incrementally more-efficient equipment designs. The model is specific to the types of equipment covered under this rulemaking, but is sufficiently generalized to model the energy consumption of all covered equipment classes. DOE developed the energy consumption model as a Microsoft Excel spreadsheet.

For a given equipment class, the model estimates the daily energy consumption for the baseline, as well as the energy consumption of subsequent levels of performance above the baseline. The model calculates each performance level separately. For the baseline level, a corresponding cost is calculated using the cost model, which is described in section IV.E.4.b. For each level above the baseline, the changes in system cost due to the implementation

[53] Typically, DOE uses the data for the 5 years preceding the year of analysis. However, in this case additional data were available up to 2004. Hence, data from 2004 to 2010 were used for these calculations.

of various design options are used to recalculate the cost. Collectively, the data from the energy consumption model are paired with the cost model data to produce points on cost-efficiency curves corresponding to specific equipment configurations. After the publication of the preliminary analysis, DOE received numerous stakeholder comments regarding the methodology and results of the energy consumption model.

a. Energy Consumption Model Results

Zero Zone noted that, while the overall modeling approach is appropriate, the results for the VCT.RC.M class are, in its opinion, too restrictive. (Zero Zone, No. 37 at p. 1) Similarly, Traulsen believed that DOE's numbers were slightly high for the VCT.SC.L equipment class, and that the incremental energy change may have been overstated, while the cost was understated, for technologies such as LED lighting, high-performance doors, and vacuum insulated panels. (Traulsen, No. 45 at p. 4)

In its analyses for the NOPR stage of this rulemaking, DOE reviewed its inputs to the engineering cost model and energy consumption model. This included reviewing publicly available data from sources such as manufacturer specification sheets and catalogs, as well as incorporating information drawn from stakeholder comments and manufacturer interviews conducted as part of the MIA process. The process included discussion and investigation of specific design options, such as the aforementioned LED lighting and vacuum insulated panels. DOE has taken efforts to incorporate all available information into its models to produce the most accurate results possible. In response to the comments by Zero Zone and Traulsen regarding energy consumption and cost results for the VCT.RC.M and VCT.SC.L classes, respectively, DOE has reviewed and updated its methodologies during the NOPR analyses to account for the latest information available, and is confident that its current results best reflect this information.

b. Anti-Sweat Heater Power

Traulsen suggested that DOE investigate whether the anti-sweat power consumed by the VCT.SC.L and VCT.SC.I equipment classes can truly be zero when high-performance doors are used, and suggested that DOE review its data. Traulsen added that it believed that, even with these door types, anti-sweat heaters are often still found on the cabinet body, especially in low-temperature equipment, which is prone to condensation due to conduction. (Traulsen, No. 45 at pp. 6–7)

In DOE's preliminary engineering analysis, anti-sweat heater power values were assigned for each of the transparent door configurations based on available data from manufacturer specification sheets and data obtained during manufacturer interviews. For medium-temperature doors, both commercial refrigeration equipment manufacturer and door manufacturer literature indicated that truly energy-free door designs with no anti-sweat heat are available on the market. This finding was confirmed through discussions with commercial refrigeration equipment manufacturers. However, for low- and ice-cream temperature doors, DOE has found that, as Traulsen stated, anti-sweat heat is still required, at a minimum, on the door frame. Table 5.6.9 of the preliminary analysis TSD chapter 5 lists anti-sweat heater powers of 165 and 80 watts for standard and high-performance doors, respectively, at low and ice-cream temperatures. These values are consistent with those that DOE has found through its research, and were retained in the NOPR analysis.

c. Evaporator Fan Motor Power

Zero Zone observed that, while DOE's assumptions regarding motor efficiency are valid, the evaporator fan specifications used by DOE for freezers of 6 rated watts per fan were flawed because freezer fans are generally higher in wattage (*i.e.,* 9 or 12 watts) to increase airflow and decrease frost formation. (Zero Zone, No. 37 at p. 2)

After receiving the comment by Zero Zone, DOE further researched evaporator fan motor power values through manufacturer catalogs and discussed the subject in manufacturer interviews during the NOPR stage of the rulemaking. The data yielded by this effort showed that remote condensing freezer cases do utilize evaporator fan motors with rated shaft powers generally closer to 9 watts. As a result, DOE updated the design specifications for those representative units in its engineering model to more accurately reflect the standard design of those units.

d. Condenser Energy Consumption

Southern Store Fixtures stated that the energy usage of the condenser is missing from the energy consumption model diagram contained in chapter 5 of the preliminary analysis TSD (Figure 5.6.1).

Regarding the comment by Southern Store Fixtures, Figure 5.6.1 of the preliminary analysis TSD chapter 5 does include a representation of the condenser fan motor energy consumption under the category of component energy consumption. The energy usage attributed to the condenser fan, found in self-contained units, is accounted for in the energy consumption model by the compressor duty cycle. For remote condensing units, the condenser fan energy consumption is not explicitly calculated; instead, remote case compressor energy consumption is calculated based on the energy efficiency ratio values given in AHRI 1200.

e. Evaporator Coil Design

Zero Zone expressed concerns about DOE's assumptions regarding evaporator coils, and noted that reduced fin spacing [54] will result in coils that do not function well in the field due to excessive frost loading. (Zero Zone, No. 37 at p. 2) Zero Zone also observed that the improved evaporator coil described in the preliminary analysis TSD for the VCT.RC.M and VCT.RC.L equipment classes would raise evaporator temperatures to the same level as the discharge air temperature, which is not feasible. (Zero Zone, No. 37 at pp. 2–3) Additionally, Zero Zone recommended that DOE conduct performance testing before assuming that high-performance coils will work in all situations because, Zero Zone asserted, DOE failed to address issues with superheat control for these advanced coils, namely that as the evaporating temperature becomes closer to the return air temperature, the ability of the expansion valve to maintain a stable superheat is decreased. (Zero Zone, No. 37 at p. 3)

With respect to Zero Zone's comment on reduction of fin spacing, DOE confirmed during manufacturer interviews that excessive frost loading becomes a concern once fin spacing is reduced below certain thresholds. As a result, DOE sought to ensure that its coil models reflected coil geometries that are suitable for production and field use without incurring such negative secondary effects as increased frost buildup. With respect to Zero Zone's second comment involving the evaporator coil temperatures, the referenced statement in the preliminary analysis TSD was intended to be a single example, and was incorrectly presented as applying to all equipment classes. The engineering model never utilized evaporator temperatures that

[54] Fin spacing, or fin pitch, refers to the distance between the flat fins that are oriented transverse to the direction of airflow across a fin-and-tube heat exchanger.

were physically infeasible or impossible to attain.

During its NOPR analyses, DOE performed independent modeling of evaporator and condenser coils based on physical teardowns of coils available on the market, coupled with numerical modeling of the coil performance. Design parameters were varied from the baseline, and the heat transfer performance of the coils was iteratively analyzed to yield higher efficiency coil designs. Cost modeling was utilized to produce cost estimates for the baseline and high-performance coil designs. This analysis served as the basis for the coil cost and performance values input into the engineering model. While DOE was unable to perform physical testing of its high-performance coil designs, as those designs were solely analytically derived and not constructed as prototypes, DOE controlled the parameters of its analysis to retain the required conditions for proper system performance. DOE believes that this analysis addresses the concerns presented by Zero Zone in its comments. For more details on the coil modeling process, see chapter 5 of the NOPR TSD.

F. Markups Analysis

DOE applies multipliers called ''markups'' to the MSP to calculate the customer purchase price of the analyzed equipment. These markups are in addition to the manufacturer markup (discussed in section IV.E.4.e) and are intended to reflect the cost and profit margins associated with the distribution and sales of the equipment. DOE identified three major distribution channels for commercial refrigeration equipment, and markup values were calculated for each distribution channel based on industry financial data. The overall markup values were then calculated by weighted-averaging the individual markups with market share values of the distribution channels. See chapter 6 of the NOPR TSD for more details on DOE's methodology for markups analysis.

DOE received a number of comments regarding markups after the publication of the preliminary analysis.

1. Baseline and Incremental Markups

Traulsen stated that, in its experience, the initial markup on equipment will be consistent with production costs, and that the incremental markups will increase with higher levels of product efficiency due to product differentiation. (Traulsen, No. 45 at p. 4) However, Traulsen also stated that it did not believe that wholesalers differentiate markups based on the technologies inherently present in this equipment and that, in its experience, wholesalers/resellers will use traditional markup rates regardless of equipment's energy efficiency. (Traulsen, No. 45 at p. 7)

In general, DOE has found that markup values vary over a wide range according to general economic outlook, manufacturer brand value, inventory levels, manufacturer rebates to distributors based on sales volume, newer versions of the same equipment model introduced into the market by the manufacturers, and availability of cheaper or more technologically advanced alternatives. Based on market data, DOE divided distributor costs into: (1) Direct cost of equipment sales; (2) labor expenses; (3) occupancy expenses; (4) other operating expenses (such as depreciation, advertising, and insurance); and (5) profit. DOE assumed that, for higher efficiency equipment only, the ''other operating costs'' and ''profit'' scale with MSP, while the remaining costs scale the same way as does the MSP of baseline equipment. In other words, the remaining costs stay constant irrespective of equipment efficiency level. Incremental markups were applied as multipliers only to the MSP increments (of higher efficiency equipment compared to baseline) and not to the entire MSP. This assumption is in line with Traulsen's first comment. Further, while DOE's use of separate values for baseline and incremental markup rates will lead to higher marked-up values for equipment at higher efficiency levels, the rate of markup will be same for all higher efficiency levels, which is consistent with Traulsen's second comment.

2. Distribution Channel Market Shares

True stated that national chains are a major part of the glass-doored, self-contained equipment market. True stated that it serves these via national accounts, adding that the market shares of the national accounts channel and the distributor channel that were used for the preliminary analysis of this rulemaking should be reversed. (True, Public Meeting Transcript, No. 31 at p. 80) NEEA agreed with True, stating that DOE had more or less reversed the market shares of the distribution channels for glass door and open self-contained equipment. NEEA also agreed with other commenters who stated that DOE's market channel fractions applied more to specialty and solid-door self-contained equipment. (NEEA, No. 36 at p. 5) Southern Store Fixtures added that it sells many remote condensing units directly to the end users, and that it also sells many self-contained units directly to supermarket and convenience store chains without using an intermediary. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 80–81) Traulsen commented that it believed that DOE's distribution channel data were reasonably accurate, within plus or minus 10 percent. (Traulsen, No. 45 at p. 3)

DOE agrees with comments from True, NEEA, and Southern Store Fixtures regarding market shares for self-contained display cases. Consequently, DOE made the distribution channel market shares for all display cases (VOP, SVO, HZO, VCT, HCT, SOC, and PD), irrespective of self-contained or remote condensing configuration, equal to that of the remote condensing equipment market shares that were proposed in the preliminary analysis TSD. DOE kept the market shares of VCS and HCS equipment families same as the self-contained equipment market shares proposed in the preliminary analysis TSD. The distribution channel market shares used for this NOPR are shown in Table IV.2. Chapter 6 and appendix 6A of the NOPR TSD provide complete details of the methodology and data used in the estimation of the markups.

TABLE IV.2—DISTRIBUTION CHANNEL MARKET SHARES

Equipment family	National account channel (percent)	Wholesaler channel (percent)	Contractor channel (percent)
VOP, SVO, HZO, VCT, HCT, SOC, and PD	70	15	15
VCS and HCS	30	60	10

G. Energy Use Analysis

Several stakeholders commented on DOE's methodology for investigating secondary impacts of efficiency improvement, as described in the preliminary analysis. Southern Store Fixtures agreed with DOE's conclusion that efficiency improvements in self-contained equipment do not have a noticeable impact on building heating and cooling loads. Southern Store Fixtures further stated that a kitchen area, with limited space and limited equipment, differs from larger settings such as supermarkets, which contain a large quantity of self-contained equipment. Southern Store Fixtures asked whether the impact of large numbers of self-contained units on the heating and cooling loads of buildings had been investigated. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 93–94)

Other stakeholders, however, had questions regarding DOE's methods. NRDC asked why only self-contained units were reviewed for secondary impacts, and whether any rack-based units had been reviewed. (NRDC, Public Meeting Transcript, No. 31 at p. 100) NEEA stated that the placement of multiple cases in a supermarket will affect heating, ventilation, and air-conditioning (HVAC) loads, and suggested that DOE reexamine the subject by modeling the performance of commercial refrigeration equipment in a business type other than a restaurant, such as a grocery store. NEEA added that restaurants typically have high ventilation loads, and opined that, in a space such as a supermarket, where the refrigeration loads approximate the ventilation loads, DOE's results are inaccurate. NEEA added that mechanical engineers use DOE–2 [55] to model secondary impacts. (NEEA, Public Meeting Transcript, No. 31 at pp. 98–100)

NEEA continued, stating that self-contained equipment, because it is not perfectly efficient, will emit more heat into its surroundings than it absorbs, which could be of benefit in the heating season but which is definitely a detriment in the cooling season. While the magnitude of these effects will depend on the equipment's geographic location, NEEA expressed its belief that DOE should not ignore this issue. NEEA added that DOE should quantify the contributions to space cooling and heating loads being generated by self-contained equipment so that stakeholders can make an informed judgment as to their significance. (NEEA, No. 36 at p. 5)

In response to NRDC's comment regarding modeling rack-based units, DOE points to the January 2009 final rule analysis that presents an extensive energy use analysis for remote condensing equipment and self-contained equipment without doors. The analysis was carried out by simulating display cases in supermarkets using the DOE–2.2 software package. Details of this analysis can be found in chapter 7 of the January 2009 final rule TSD (*www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/chp_7_cre_energy_final.pdf*). Based on this energy use analysis, DOE concluded that the overall impact of the considered design options had only a minor differential impact on the overall HVAC energy consumption of supermarkets. Further, DOE concluded that the energy consumption model used in the engineering analysis simulated the energy consumption of the various equipment classes with adequate accuracy, and therefore DOE used the estimates from the engineering analysis for the LCC and subsequent analyses.

For the current rulemaking, DOE received comments during the May 2010 Framework document public meeting regarding the proportionally larger share of self-contained equipment examined in this rulemaking compared to that examined in the January 2009 final rule, and the impact of this equipment on building HVAC loads. DOE evaluated the impact of self-contained equipment through whole-building simulations with a VCT.SC.L freezer in restaurant buildings using the whole-building energy use simulation tool EnergyPlus, which is the primary software tool supported by DOE's Building Technologies Program for energy use analysis of buildings. Through these simulations, DOE found that the differential impact of efficiency improvements in VCT.SC.L equipment on the HVAC loads of restaurant buildings was negligible. Since VCT.SC.L energy consumption is one of the highest among the major self-contained equipment classes, DOE concluded that the incremental impact of efficiency improvements in all self-contained refrigerators and freezers on HVAC loads of restaurant buildings is negligible. While it is true, as stated in NEEA's comment, that restaurant building models have higher ventilation loads than other building models, DOE decided, as a matter of policy, that it would not assess the secondary impacts of amended standards such as the impacts of improved equipment efficiency on building HVAC loads. Therefore, DOE did not pursue this matter any further in its NOPR analysis.

In response to NEEA's comment regarding the equipment's heat emitted by self-contained equipment and the geographic location of these units, DOE points to chapter 7 of the preliminary analysis TSD for complete details of the analysis. The whole-building simulations conducted for the preliminary analysis were carried out in 15 different climates zones, representing all the major climate zones in the United States, with an appropriate weighting factor applied to each climate zone. Further, the analysis was carried out over 1 full year (365 days). The results of the preliminary energy use analysis were obtained by averaging the energy consumption of the equipment over 1 full year and over all the major climate zones in the United States.

DOE understands that the presence of many self-contained refrigeration units may have a considerable impact on the HVAC loads of a business establishment, as stated by Southern Store Fixtures. However, DOE reiterates that the objective of its analysis is to assess only the differential impact of equipment efficiency improvements, and not to assess the impact of total heat output by a self-contained unit. Moreover, DOE's energy use analysis is concerned with the impact of only one unit of commercial refrigeration equipment. As stated above, DOE found that the differential impact of equipment efficiency improvements to a VCT.SC.L freezer on the building HVAC loads was negligible.

As a matter of policy, DOE has determined that it will not carry out studies to determine the impact of efficiency improvements to equipment on building HVAC loads in appliance and commercial equipment standards rulemakings.

H. Life-Cycle Cost Analysis

DOE conducts LCC analysis to evaluate the economic impacts of potential amended energy conservation standards on individual commercial customers—that is, buyers of the equipment. LCC is defined as the total customer cost over the life of the equipment, and consists of purchase price, installation costs, and operating costs (maintenance, repair, and energy costs). DOE discounts future operating costs to the time of purchase and sums them over the expected lifetime of the piece of equipment. PBP is defined as

[55] DOE–2 is a widely used and accepted freeware building energy analysis program that can predict the energy use and cost for different types of buildings. DOE–2 uses a description of the building layout, construction, usage, conditioning systems and utility rates provided by the user, along with weather data, to perform an hourly simulation of the building and to estimate utility bills.

the estimated amount of time it takes customers to recover the higher installed costs of more-efficient equipment through savings in operating costs. DOE calculates the PBP by dividing the increase in installed costs by the average savings in annual operating costs.

As part of the engineering analysis, design option levels were ordered based on increasing efficiency (i.e., decreasing energy consumption) and increasing MSP. For the LCC analysis, DOE chose a maximum of eight levels, henceforth referred to as ''efficiency levels,'' from the list of engineering design option levels. For equipment classes for which fewer than eight design option levels were defined in the engineering analysis, all design option levels were used. However, for equipment classes where more than eight design option levels were defined, DOE selected specific levels to analyze in the following manner:

1. The lowest and highest energy consumption levels provided in the engineering analysis were preserved.
2. If the difference in reported energy consumptions and reported manufacturer price between sequential levels was minimal, only the higher efficiency level was selected.
3. If the energy consumption savings benefit between efficiency levels relative to the increased cost was very similar across multiple sequential levels, an intermediate level was not selected as an efficiency level.

The first efficiency level (Level 1) in each equipment class is the least efficient and the least expensive equipment in that class. The higher efficiency levels (Level 2 and higher) exhibit progressive increases in efficiency and cost from Level 1. The highest efficiency level in each equipment class corresponds to the max-tech level. DOE treats the efficiency levels as ''candidate standard levels,'' as each higher efficiency level represents a potential new standard level.

The installed cost of equipment to a customer is the sum of the equipment purchase price and installation costs. The purchase price includes MPC, to which a manufacturer markup and outbound freight cost are applied to obtain the MSP. This value is calculated as part of the engineering analysis (chapter 5 of the NOPR TSD). DOE then applies additional markups to the equipment to account for the markups associated with the distribution channels for the particular type of equipment (chapter 6 of the NOPR TSD). Installation costs varied by State, depending on the prevailing labor rates.

Operating costs for commercial refrigeration equipment are the sum of maintenance costs, repair costs, and energy costs. These costs are incurred over the life of the equipment and therefore are discounted to the base year (2017, which is the compliance date of any amended standards that are established as part of this rulemaking). The sum of the installed cost and the operating cost, discounted to reflect the present value, is termed the life-cycle cost or LCC.

Generally, customers incur higher installed costs when they purchase higher efficiency equipment, and these cost increments will be partially or wholly offset by savings in the operating costs over the lifetime of the equipment. Usually, the savings in operating costs are due to savings in energy costs because higher efficiency equipment uses less energy over the lifetime of the equipment. Often, the LCC of higher efficiency equipment is less than lower efficiency equipment. LCC savings are calculated for each efficiency level of each equipment class.

The PBP of higher efficiency equipment is obtained by dividing the increase in the installed cost by the decrease in annual operating cost. In addition to energy costs (calculated using the electricity price forecast for the first year), the annual operating cost includes annualized maintenance and repair costs. PBP is calculated for each efficiency level of each equipment class.

Apart from MSP, installation costs, and maintenance and repair costs, other important inputs for the LCC analysis are markups and sales tax, equipment energy consumption, electricity prices and future price trends, expected equipment lifetime, and discount rates.

Many inputs for the LCC analysis are estimated from the best available data in the market, and in some cases the inputs are generally accepted values within the industry. In general, each input value has a range of values associated with it. While single representative values for each input may yield an output that is the most probable value for that output, such an analysis does not provide the general range of values that can be attributed to a particular output value. Therefore, DOE carried out the LCC analysis in the form of Monte Carlo simulations,[56] in which certain inputs were expressed as a range of values and probability distributions to account for the ranges of values that may be typically associated with the respective input values. The results, or outputs, of the LCC analysis are presented in the form of mean and median LCC savings; percentages of customers experiencing net savings, net cost and no impact in LCC; and median PBP. For each equipment class, 10,000 Monte Carlo simulations were carried out. The simulations were conducted using Microsoft Excel and Crystal Ball, a commercially available Excel add-in used to carry out Monte Carlo simulations.

LCC savings and PBP are calculated by comparing the installed costs and LCC values of standards-case scenarios against those of base-case scenarios. The base-case scenario is the scenario in which equipment is assumed to be purchased by customers in the absence of the proposed energy conservation standards. Standards-case scenarios are scenarios in which equipment is assumed to be purchased by customers after the amended energy conservation standards, determined as part of the current rulemaking, go into effect. The number of standards-case scenarios for an equipment class is equal to one less than the total number of efficiency levels in that equipment class, since each efficiency level above Efficiency Level 1 represents a potential amended standard. Usually, the equipment available in the market will have a distribution of efficiencies. Therefore, for both base-case and standards-case scenarios, in the LCC analysis, DOE assumed a distribution of efficiencies in the market, and the distribution was assumed to be spread across all efficiency levels in the LCC analysis (see NOPR TSD chapter 10).

Recognizing that each building that uses commercial refrigeration equipment is unique, DOE analyzed variability in the LCC and PBP results by performing the LCC and PBP calculations for seven types of businesses: (1) Supermarkets; (2) wholesaler/multi-line retail stores, such as ''big-box stores,'' ''warehouses,'' and ''supercenters''; (3) convenience and small specialty stores, such as meat markets and wine, beer, and liquor stores; (4) convenience stores associated with gasoline stations; (5) full-service restaurants; (6) limited service restaurants; and (7) other foodservice businesses, such as caterers and cafeterias. Different types of businesses

[56] Monte Carlo simulation is, generally, a computerized mathematical technique that allows for computation of the outputs from a mathematical model based on multiple simulations using different input values. The input values are varied based on the uncertainties inherent to those inputs. The combination of the input values of different inputs is carried out in a random fashion to simulate the different probable input combinations. The outputs of the Monte Carlo simulations reflect the various outputs that are possible due to the variations in the inputs.

face different energy prices and also exhibit differing discount rates that they apply to purchase decisions.

Expected equipment lifetime is another input whose value varies over a range. Therefore, DOE assumed a distribution of equipment lifetimes that are defined by Weibull survival functions.[57]

Another important factor influencing the LCC analysis is the State in which the commercial refrigeration equipment is installed. Inputs that vary based on this factor include energy prices and sales tax. At the national level, the spreadsheets explicitly modeled variability in the inputs for electricity price and markups, using probability distributions based on the relative shipments of units to different States and business types.

Detailed descriptions of the methodology used for the LCC analysis, along with a discussion of inputs and results, are presented in chapter 8 and appendices 8A and 8B of the NOPR TSD.

1. Effect of Current Standards

DOE notes that, beginning January 1, 2012, manufacturers were required to comply with the standards set by the January 2009 final rule.[58] 74 FR 1092 (Jan. 9, 2009). DOE concludes that the efficiency level of the equipment on the market increased during this time. The engineering analysis for this NOPR was first developed in 2011, and therefore the engineering design option levels include efficiency levels of equipment available in the market in 2011. This means that the engineering efficiency levels were built up starting from levels which are below the standards set by the January 2009 final rule. These levels were included for analytical purposes, solely to represent the manner in which manufacturers may have achieved compliance with the January 2009 final rule standard levels, and were not considered in the development of proposed standard levels. The LCC analysis and NIA assume the first year for the analyses as 2017. As noted above, the market in 2017 will be different from that in 2011 in terms of efficiency distribution of the equipment, mainly due to the effect of the standards established by the January 2009 final rule. Therefore, the market baseline (from the year 2011) used as the starting point for the engineering analysis is not the same as the market baseline in 2017, when any amended standards prescribed by the current rulemaking are scheduled to go into effect.

To estimate the state of the market baseline level in 2017, DOE introduced a baseline level termed the ''standards baseline.'' The energy consumption of the standards baseline level of an equipment class is equal to the standard prescribed by the January 2009 final rule for that equipment class. 74 FR 1093 (Jan. 9, 2009). The design option levels that are less efficient than the standards baseline were disregarded, and the more-efficient design option levels were carried forward for downstream analyses. A detailed description of this procedure is presented with the aid of an example in chapter 8 of NOPR TSD.

At the April 2011 preliminary analysis public meeting, AHRI asked whether DOE intended to update the LCC analysis once the standards set in the January 2009 final rule became effective in order to change the baseline. (AHRI, Public Meeting Transcript, No. 31 at pp. 99–100)

The engineering analysis for this NOPR was first developed in 2011, and updated with new information as it became available up to the time of this publication. However, DOE continued to use in its engineering baseline characteristics reflecting the construction of equipment prior to required compliance with the standards set by the January 2009 final rule. As a result, some of the engineering efficiency levels reflect levels which do not correspond to equipment performance currently permitted on the market after January 1, 2012. These levels, however, are solely used to reflect the manner in which DOE believes manufacturers could have attained the 2009 final rule standard levels through implementation of design options, and were not used in the downstream analysis for the purposes of calculating standard levels proposed in this NOPR.

Consistent with the methodology described above and explained in detail in Chapter 8 of the NOPR TSD, DOE developed a ''standards baseline'' for use as the starting point for its downstream (LCC and PBP, NIA, etc.) analyses. This standards baseline corresponds to the lowest efficiency level which would be compliant with current (January 2009 final rule) standards. From there, higher efficiency levels were studied as the basis for developing potential standard levels as proposed in today's NOPR. In response to AHRI's comment, DOE used updated inputs to the baseline in order to reflect the compliance date of the January 2009 final rule standards having passed. This includes updates to the non-standards case efficiency distribution and other inputs to the downstream analyses. These inputs were updated based on the most recent available information for use in conducting the analysis described in today's NOPR.

2. Equipment Cost

To calculate customer equipment costs, DOE multiplied the MSPs developed in the engineering analysis by the distribution channel markups, described in section IV.F. DOE applied baseline markups to baseline MSPs, and incremental markups to the MSP increments associated with higher efficiency levels.

3. Installation, Maintenance, and Repair Costs

Installation cost includes labor, overhead, and any miscellaneous materials and parts needed to install the equipment. The installation costs may vary from one equipment class to another, but they do not vary with efficiency levels within an equipment class. Costs that do not vary with efficiency levels do not impact the LCC, PBP, or NIA results. DOE retained the nationally representative installation cost values from the January 2009 final rule of $2,000 for all remote condensing equipment and $750 for all self-contained equipment, and simply escalated the values from 2007$ to 2012$, resulting in 2012 installation costs of $2,299 and $862, respectively.

True stated that the average glass-doored merchandiser is moved and installed twice in its lifetime, and that self-contained, solid-doored units, which are used in commercial kitchens, are moved and installed in different locations at least three times, on average, during their lifetimes. Therefore, True suggested that DOE double or triple its estimated installation cost. (True, Public Meeting Transcript, No, 31 at p. 110)

Based on the design options for higher efficiency levels, DOE determined that installation costs do not vary by efficiency levels within a given equipment class. Costs that do not vary with efficiency levels do not impact the LCC, PBP, or NIA results. Because doubling or tripling of installation costs would not impact the net results, DOE did not alter the installation costs for the NOPR analyses based on True's comment.

[57] Weibull survival function is a continuous probability distribution function that is used to approximate the distribution of equipment lifetimes of commercial refrigeration equipment.

[58] DOE extended the compliance date for manufacturers to submit certification reports tor commercial refrigeration equipment until December 31, 2013. 77 FR 76825 (Dec. 31, 2012). DOE emphasizes, however, that the testing and sampling requirements for commercial refrigeration equipment are unchanged by this extension.

Maintenance costs are associated with maintaining the operation of the equipment. DOE split the maintenance costs into regular maintenance costs and lighting maintenance costs. Regular maintenance activities, which include cleaning evaporator and condenser coils, drain pans, fans, and intake screens; inspecting door gaskets and seals; lubricating hinges; and checking starter panel, control, and defrost system operation, were considered to be equivalent for equipment at all efficiency levels. Lighting maintenance costs are the costs incurred to replace display case lighting at regular intervals in a preventative fashion. Because lights and lighting configuration change with efficiency levels, lighting maintenance costs vary with efficiency levels. As stated in section IV.E.4.d, for efficiency levels that incorporate LED lights as a design option, the reduction in LED costs beyond 2017 were taken into account when calculating the lighting maintenance costs.

Repair cost is the cost to the customer of replacing or repairing failed components. DOE calculated repair costs based on the typical failure rate of refrigeration system components, original equipment manufacturer (OEM) cost of the components, and an assumed markup value to account for labor cost.

a. Maintenance and Repair Costs by Efficiency Level

Traulsen commented that it agreed with DOE that installation and maintenance costs would be flat across all efficiency levels. (Traulsen, No. 45 at p. 4) AHRI, however, disagreed with DOE's assumption that repair and maintenance costs would not vary with efficiency. AHRI stated that the industry's experience has been that higher efficiency equipment is more expensive to repair and maintain since it uses more sophisticated components. AHRI also added that, if repair and maintenance cost data are not available by efficiency level, DOE should correlate repair and maintenance cost with equipment cost. (AHRI, No. 43 at p. 3)

DOE does not believe that any design option used in the higher efficiency equipment considered in this rulemaking would lead to higher costs for regular maintenance activities. Repair costs and lighting maintenance costs, on the other hand, have been modeled to be proportional to the OEM cost of the components and, consequently, are higher for higher efficiency equipment. DOE requested information from stakeholders regarding maintenance and repair costs specifically related to any of the design options used for this rulemaking, but did not receive any such information. Therefore, DOE retained its approach of using flat costs for regular maintenance, and costs proportional to OEM cost for repair costs and lighting maintenance costs.

Southern Store Fixtures questioned whether DOE would examine the economic impact of night curtains and lighting occupancy sensors on equipment cost and operating cost. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 185–86) CA IOUs stated that labor costs related to night curtain deployment can be significant. CA IOUs urged DOE to review and update its assumptions involving night curtains. (CA IOUs, No. 42 at p. 5)

Equipment costs, which include costs of night curtains and lighting occupancy sensors, were covered in the engineering analysis used to obtain the MSP (see section IV.E). Based on discussions with specialists in display case retrofits who are familiar with lighting occupancy sensor installation and setup, DOE concluded that lighting occupancy sensors do not increase maintenance costs of commercial refrigeration equipment. With respect to repair or replacement costs, DOE determined that the manufacturing processes used today produce highly reliable products, making the failure of occupancy sensors relatively rare. Typically, according to the available data, lighting occupancy sensors last nearly 15 years, which is longer than the average lifetime of commercial refrigeration equipment. Therefore, DOE did not include lighting occupancy sensor repair or replacement costs in the LCC analysis.

DOE believes that the night curtains currently available in the market are designed for easy deployment and retraction. In most instances, it takes less than 15 seconds per refrigerated display case to deploy or retract a night curtain. DOE believes that deployment and retraction of night curtains can be easily assimilated into the activities associated with store closing or opening operations, and will not amount to an added expense. Therefore, DOE did not add labor costs for night curtain deployment and retraction to the LCC analysis or NIA.

b. Maintenance and Repair Cost Annualization

Stakeholders provided feedback on DOE's methodology in annualizing the costs of equipment maintenance and repair. ASAP stated that annualizing lighting maintenance costs results in a present value that is greater than it would be if DOE were to model lighting replacement costs in the years in which they actually were incurred. (ASAP, Public Meeting Transcript, No. 31 at p. 104) NEEA agreed that DOE should try to characterize maintenance costs as accurately as possible, modeling truly annual costs on an annual basis, and other costs as they occur (*i.e.,* as capital equipment costs). NEEA added that it is not appropriate to annualize all costs because, while some costs are truly annual or biannual, others are periodic maintenance investments and should be treated as such. NEEA referenced the fluorescent lamp ballast rulemaking (Docket No. EE–2007–BT–STD–0016), in which DOE accounted for lamp replacement costs in the years in which they occurred, and urged DOE to adopt a similar methodology in this rulemaking. (NEEA, Public Meeting Transcript, No. 31 at p. 105, No. 36 at pp. 5–6) ASAP and NRDC echoed this stance in their jointly submitted written comment, stating that, while it is reasonable to annualize costs that are indeed incurred annually or biannually, annualizing costs that only occur in certain years could distort the LCC output, resulting in a higher present value of annualized costs. ASAP and NRDC also referenced the fluorescent ballast rulemaking, and suggested that DOE account for costs similarly in this rulemaking's analyses. (ASAP and NRDC, No. 34 at p. 4) Southern Store Fixtures, however, offered a dissenting opinion, adding that it is a common practice in supermarkets to have lighting contracts under which a maintenance worker changes the lights on a scheduled basis, whether they are broken or not, making lighting costs indeed annual. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 107)

DOE has determined that, if the costs of known items occurring at predictable intervals are appropriately discounted when annualized, there will be no impact on LCC and NIA results, regardless of whether or not the costs are annualized. Additionally, in the commercial refrigeration equipment analyses, repairs and replacements have been modeled as a combination of known, expected items, plus others modeled simply as a fraction of failed components that are expected to be replaced during equipment lifetime. Such a characterization of maintenance and repair costs does not lend itself to specification of a particular time, during the equipment lifetime, when such repairs are likely to occur. Further, the PBP by its very definition cannot be calculated unless the costs are annualized. Finally, if multiple explicit

repair and maintenance line items were tracked individually in the NIA model, the size and complexity of the computer model would grow exponentially without a commensurate improvement in value. Therefore, DOE has retained its conventional approach of annualizing the maintenance and repair costs.

c. Maintenance Cost Estimates

At the April 2011 preliminary analysis public meeting, Coca-Cola stated that its largest maintenance cost is condenser cleaning, which is much more expensive than lighting maintenance. (Coca-Cola, Public Meeting Transcript, No. 31 at p. 109) NEEA commented that, in the case of actual maintenance costs, it agreed with Coca-Cola's assertion that $35 per year, the maintenance cost presented by DOE in its preliminary analysis, is too low based on its intuition regarding the cost of labor and travel to maintain equipment. (NEEA, No. 36 at p. 6)

DOE obtained its annualized maintenance costs for commercial refrigeration equipment from RS Means Facilities Maintenance and Repair Cost Data.[59] RS Means data provide estimates of the person-hours, labor rates, and materials required to maintain commercial refrigeration equipment. While it could be true that an amount of $35 per year does not reflect travel and other overhead charges, DOE believes that the value reflects the cost incurred for labor if the maintenance were to be performed by in-house personnel of the business establishment. In any case, the actual amount allocated to the regular maintenance costs has no effect on the LCC analysis or the NIA because maintenance costs do not vary based on efficiency levels in any equipment class. DOE believes the higher efficiency design options selected for this rulemaking do not result in changes to the regular maintenance costs of the commercial refrigeration equipment. Therefore, DOE believes that a value of $35 is reasonably representative of the regular maintenance costs for self-contained equipment.

d. Refrigerant Costs

Southern Store Fixtures stated that DOE should include refrigerant recharge costs in its maintenance cost estimates, because EPA and DOE have accepted that there is an 18-percent refrigerant leakage rate annually, or at least regularly, for rack systems. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 108)

Costs incurred due to refrigerant leakage do not vary with equipment efficiency levels. Therefore, these costs will not affect the LCC analysis or NIA results. DOE did not take these costs into account for the NOPR analysis.

e. Repair Costs

Traulsen stated that repair costs would increase commensurate with the purchase price of the components to be repaired. This increase, Traulsen added, would be consistent with the increase in manufacturing cost due to the implementation of a technology. (Traulsen, No. 45 at p. 4)

DOE modeled repair costs as directly proportional to the OEM cost of the failed components. This approach yields higher repair costs for higher efficiency equipment and is consistent with Traulsen's comment.

Zero Zone stated that it suspected the average lifetime of an LED light is less than 5 years, and that the cost to replace one will be higher than estimated. This, Zero Zone added, is because LEDs continue to evolve and older models are discontinued, meaning that replacement of failed LEDs will require a complete relamping to maintain consistent product appearance. (Zero Zone, No. 37 at p. 4)

All major manufacturers of LED lighting solutions for refrigerated display cases state that the maintenance-free lifetime for LED lights is 50,000 hours, and some of the retailers offer a 5-year warranty. DOE did not find any basis for doubting the assumption of a 50,000-hour lifetime for LED lights in refrigerated display cases. Recognizing that replacement of LED strip lighting in refrigerated display cases involves higher labor costs compared to the simple lamp replacement process of fluorescent tube lights, DOE applied a retrofit factor (multiplier) of 1.4 to the LED lamp cost to account for relamping of LED lights in display cases. The results presented in the preliminary analysis used the retrofit factor of 1.4, and DOE used the same factor for its NOPR analysis.

4. Annual Energy Consumption

Annual energy consumption of commercial refrigeration equipment is obtained from engineering analysis (chapter 5 of the NOPR TSD).

5. Energy Prices

DOE calculated average commercial electricity prices using the U.S. Energy Information Administration's (EIA's) Form EIA–826, ''Database Monthly Electric Utility Sales and Revenue Data.'' [60] DOE calculated an average national commercial price by (1) estimating an average commercial price for each utility company by dividing the commercial revenues by commercial sales; and (2) weighting each utility by the number of commercial customers it served in that region, across the nation.

6. Energy Price Projections

To estimate energy prices in future years for the preliminary analysis TSD, DOE multiplied the average regional energy prices described above by the forecast of annual average commercial energy price indices developed in the Reference Case from *AEO2013*.[61] *AEO2013* forecasted prices through 2040. To estimate the price trends after 2040, DOE assumed the same average annual rate of change in prices as from 2031 to 2040.

7. Equipment Lifetime

DOE defines lifetime as the age at which a commercial refrigeration equipment unit is retired from service. DOE based expected equipment lifetime on discussions with industry experts, and concluded that a typical lifetime of 10 years is appropriate for most commercial refrigeration equipment in large grocery/multi-line stores and restaurants. Industry experts believe that operators of small food retail stores, on the other hand, tend to use display cases longer. DOE used 15 years as the average equipment lifetime for display cases used in such retail stores. DOE reflects the uncertainty of equipment lifetimes in the LCC analysis for both equipment markets as probability distributions, as discussed in section 8.2.3.5 of the TSD.

Traulsen stated that 10 years is an acceptable estimate for the lifetime of self-contained equipment, and that it is not uncommon for some applications to have a 20-year lifetime. However, Traulsen added that smaller units subject to more frequent human interaction, such as undercounter units, would likely have shorter lifetimes, such as 7 years. Traulsen also stated that price point could indicate potential lifetime. (Traulsen, Public Meeting Transcript, No. 31 at p. 4) AHRI commented that properly installed and maintained equipment typically has a much longer lifetime than the actual

[59] RS Means Company, Inc. *Means Costworks 2010: Facility, Maintenance and Repair Cost Data.* 2010. Kingston, MA.

[60] U.S. Energy Information Administration. *EIA–826 Sales and Revenue Spreadsheets.* (Last accessed May 16, 2012). *www.eia.doe.gov/cneaf/electricity/page/eia826.html*

[61] The spreadsheet tool that DOE used to conduct the LCC and PBP analyses allows users to select price forecasts from either *AEO*'s High Economic Growth or Low Economic Growth Cases. Users can thereby estimate the sensitivity of the LCC and PBP results to different energy price forecasts.

period of time the end use customers retain it, and that this is entirely dependent on the specific business models of and competitive demands on different users. However, AHRI added that the 10-year lifetime used by DOE is an appropriate average value. (AHRI, No. 43 at p. 3) NEEA concurred, stating that it generally agreed with the inputs to the Crystal Ball simulations that DOE used. In particular, NEEA stated that it was comfortable with the assumed equipment lifetimes and distributions thereof, and that, while much of the equipment does indeed last longer, at that point the equipment becomes used equipment and is not directly applicable to the rulemaking except for purposes of estimating shipments. (NEEA, No. 36 at p. 6)

DOE appreciates the comments previously submitted and welcomes further input on the equipment lifetimes for the LCC analysis and NIA.

8. Discount Rates

In calculating the LCC, DOE applies discount rates to estimate the present value of future operating costs to the customers for commercial refrigeration equipment. The discount rate is the rate at which future expenditures are discounted to establish their present value to the customer.[62] DOE derived the discount rates for the commercial refrigeration equipment analysis by estimating the cost of capital for a large number of companies similar to those that could purchase commercial refrigeration equipment and then sampling them to characterize the effect of a distribution of potential customer discount rates. The cost of capital is commonly used to estimate the present value of cash flows to be derived from a typical company project or investment. Most companies use both debt and equity capital to fund investments, so their cost of capital is the weighted average of the cost to the company of equity and debt financing.

DOE estimated the cost of equity financing by using the Capital Asset Pricing Model (CAPM).[63] The CAPM, among the most widely used models to estimate the cost of equity financing, assumes that the cost of equity is proportional to the amount of systematic risk associated with a company. The cost of equity financing tends to be high when a company faces a large degree of systematic risk, and it tends to be low when the company faces a small degree of systematic risk.

9. Compliance Date of Standards

EPCA prescribes that DOE must review and determine whether to amend performance-based standards for commercial refrigeration equipment by January 1, 2013. (42 U.S.C. 6313(c)(6)(A)) In addition, EPCA requires that any amended standards established in this rulemaking must apply to equipment that is manufactured on or after 3 years after the final rule is published in the **Federal Register** unless DOE determines, by rule, that a 3-year period is inadequate, in which case DOE may extend the compliance date for that standard by an additional 2 years. (42 U.S.C. 6313(c)(6)(C)) Based on these criteria, DOE reasoned due to the cumulative regulatory burden of the recently implemented 2009 CRE final rule and of the upcoming walk-in cooler and freezer rule, which both affect the same industry that the most likely compliance date for standards set by this rulemaking would be in 2017. Therefore, DOE calculated the LCC and PBP for commercial refrigeration equipment under the assumption that compliant equipment would be purchased in 2017. DOE seeks comment on whether it should extend the compliance date as authorized, and, if so, by how long.

10. Base-Case and Standards-Case Efficiency Distributions

To accurately estimate the share of affected customers who would likely be impacted by a standard at a particular efficiency level, DOE's LCC analysis considers the projected distribution of efficiencies of equipment that customers purchase under the base case (that is, the case without new or amended energy efficiency standards). DOE refers to this distribution of equipment efficiencies as a base-case efficiency distribution.

DOE's methodology to estimate market shares of each efficiency level within each equipment class is a cost-based method consistent with the approaches that were used in the EIA's National Energy Modeling System (NEMS)[64] and in the Canadian Integrated Modeling System (CIMS)[65] [66] for estimating efficiency choices within each equipment class. DOE then extrapolated future scenarios of the equipment efficiency for the base case and amended standards cases using the same cost-based method. The difference in equipment efficiency between the base case and amended standards case was the basis for determining the reduction in unit energy consumption resulting from amended standards.

Traulsen commented that it believed that DOE's estimates of shipment-weighted market share are skewed toward the higher performance levels. Traulsen added that it believed that DOE has overestimated the value that end users place on energy efficiency. (Traulsen, No. 45 at p. 7)

DOE recognizes Traulsen's concern, but at this time has no data to more accurately define the market shares by efficiency level within each equipment class. No data on shipments by efficiency level of either self-contained or remote condensing equipment classes are known to DOE or were provided by industry or other stakeholders. Currently, there is also no extensive database of available efficiency levels by model that could be used to provide a proxy for efficiency levels for shipped equipment, an approach that has been used in rulemakings for other products when efficiency data on shipped products was lacking. The methodology used for this analysis was identical to that used in the January 2009 final rule analysis. See chapter 10 of the TSD for the January 2009 final rule, available at: *www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/chp_10_cre_shipmts_final.pdf*. If the model overstates the share of shipments at higher efficiency levels in the base case scenario, it results in analysis erring on the side of lower NES and NPV values.

11. Inputs to Payback Period Analysis

Payback period is the amount of time it takes the customer to recover the higher purchase cost of more energy efficient equipment as a result of lower operating costs. Numerically, the PBP is the ratio of the increase in purchase cost to the decrease in annual operating expenditures. This type of calculation is known as a ''simple'' PBP because it does not take into account changes in operating cost over time or the time

[62] The LCC analysis estimates the economic impact on the individual customer from that customer's own economic perspective in the year of purchase and therefore needs to reflect that individual's own perceived cost of capital. By way of contrast DOE's analysis of national impact requires a societal discount rate. These rates used in that analysis are 7 percent and 3 percent, as required by OMB Circular A–4, September 17, 2003.

[63] Harris, R.S. *Applying the Capital Asset Pricing Model.* UVA–F–1456. Available at SSRN: *http://ssrn.com/abstract=909893*.

[64] U.S. Energy Information Administration. National Energy Modeling System Commercial Model (2004 Version). 2004. Washington, DC.

[65] The CIMS Model was originally known as the Canadian Integrated Modeling System, but as the model is now being applied to other countries, the acronym is now used as its proper name.

[66] Energy Research Group/M.K. Jaccard & Associates. *Integration of GHG Emission Reduction Options using CIMS.* 2000. Vancouver, B.C. *www.emrg.sfu.ca/media/publications/Reports%20for%20Natural%20Resources%20Canada/Rollup.pdf*

value of money; that is, the calculation is done at an effective discount rate of zero percent. PBPs are expressed in years. PBPs greater than the life of the equipment mean that the increased total installed cost of the more-efficient equipment is not recovered in reduced operating costs over the life of the equipment.

The inputs to the PBP calculation are the total installed cost to the customer of the equipment for each efficiency level and the average annual operating expenditures for each efficiency level in the first year. The PBP calculation uses the same inputs as the LCC analysis, except that electricity price trends and discount rates are not used.

12. Rebuttable-Presumption Payback Period

Sections 325(o)(2)(B)(iii) and 345(e)(1)(A) of EPCA, (42 U.S.C. 6295(o)(2)(B)(iii) and 42 U.S.C. 6316(e)(1)(A)), establish a rebuttable presumption applicable to commercial refrigeration equipment. The rebuttable presumption states that a new or amended standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure. This rebuttable presumption test is an alternative way of establishing economic justification.

To evaluate the rebuttable presumption, DOE estimated the additional cost of purchasing more-efficient, standards-compliant equipment, and compared this cost to the value of the energy saved during the first year of operation of the equipment. DOE interprets that the increased cost of purchasing standards-compliant equipment includes the cost of installing the equipment for use by the purchaser. DOE calculated the rebuttable presumption payback period (RPBP), or the ratio of the value of the increased installed price above the baseline efficiency level to the first year's energy cost savings. When the RPBP is less than 3 years, the rebuttable presumption is satisfied; when the RPBP is equal to or more than 3 years, the rebuttable presumption is not satisfied. Note that this PBP calculation does not include other components of the annual operating cost of the equipment (*i.e.,* maintenance costs and repair costs).

While DOE examined the rebuttable-presumption, it also considered whether the standard levels considered are economically justified through a more detailed analysis of the economic impacts of these levels pursuant to 42 U.S.C. 6295(o)(2)(B)(i). The results of this analysis served as the basis for DOE to evaluate the economic justification for a potential standard level definitively (thereby supporting or rebutting the results of any preliminary determination of economic justification).

I. National Impact Analysis—National Energy Savings and Net Present Value

The NIA assesses the NES and the NPV of total customer costs and savings that would be expected as a result of amended energy conservation standards. The NES and NPV are analyzed at specific efficiency levels for each equipment class of commercial refrigeration equipment. DOE calculates the NES and NPV based on projections of annual equipment shipments, along with the annual energy consumption and total installed cost data from the LCC analysis. For the NOPR analysis, DOE forecasted the energy savings, operating cost savings, equipment costs, and NPV of customer benefits for equipment sold from 2017 through 2046—the year in which the last standards-compliant equipment is shipped during the 30-year analysis period.

DOE evaluates the impacts of the amended standards by comparing base-case projections with standards-case projections. The base-case projections characterize energy use and customer costs for each equipment class in the absence of any amended energy conservation standards. DOE compares these projections with projections characterizing the market for each equipment class if DOE were to adopt an amended standard at specific energy efficiency levels for that equipment class. For the standards cases, DOE considered a ''roll-up'' scenario, in which DOE assumed that equipment efficiencies that do not meet the standard level under consideration would ''roll-up'' to meet the amended standard level, and those already above the proposed standard level would remain unaffected.

DOE uses a Microsoft Excel spreadsheet model to calculate the energy savings and the national customer costs and savings from each TSL. The NOPR TSD and other documentation that DOE provides during the rulemaking help explain the models and how to use them, and interested parties can review DOE's analyses by interacting with these spreadsheets. The NIA spreadsheet model uses average values as inputs (as opposed to probability distributions of key input parameters from a set of possible values).

For the current analysis, the NIA used projections of energy prices and commercial building starts from the *AEO2013* Reference Case. In addition, DOE analyzed scenarios that used inputs from the *AEO2013* Low Economic Growth and High Economic Growth Cases. These cases have lower and higher energy price trends, respectively, compared to the Reference Case. NIA results based on these cases are presented in chapter 10 of the NOPR TSD.

A detailed description of the procedure to calculate NES and NPV, and inputs for this analysis are provided in chapter 10 of the NOPR TSD.

1. Shipments

Complete historical shipments data for commercial refrigeration equipment could not be obtained from a single source; therefore, DOE used data from multiple sources to estimate historical shipments. The major sources were 2005 shipments data provided by ARI as part of its comments submitted in response to the January 2009 final rule Framework document, ARI 2005 Report (Docket No. EERE–2006–BT–STD–0126, ARI, No. 7, Exhibit B at p. 1); *Commercial Refrigeration Equipment to 2014* by Freedonia Group, Inc.[67]; *2008 Size and Shape of Industry* by the North American Association of Food Equipment Manufacturers;[68] and *Energy Savings Potential and R&D Opportunities for Commercial Refrigeration* prepared by Navigant Consulting, Inc. for DOE.[69] Exact shipments numbers and assumptions have been withheld because some of the sources cited above are not public documents and are available only for purchase.

Historical linear feet of shipped units depicts the annual amount of commercial refrigeration equipment capacity shipped, and is an alternative way to express shipments data. DOE determined the linear feet shipped for any given year by multiplying each unit shipped by its associated average length, and then summing all the linear footage

[67] Freedonia Group, Inc. *Commercial Refrigeration Equipment to 2014.* 2010. Cleveland, OH. Study 2261. *www.freedoniagroup.com/Commercial-Refrigeration-Equipment.html*

[68] North American Association of Food Equipment Manufacturers. *2008 Size and Shape of Industry.* 2008. Chicago, IL.

[69] Navigant Consulting, Inc. *Energy Savings Potential and R&D Opportunities for Commercial Refrigeration.* 2009. Prepared by Navigant Consulting, Inc. for the U.S. Department of Energy, Washington, DC.

values. Table IV.3 presents the representative equipment class lengths used for the conversion of per-unit shipments to linear footage within each equipment class.

TABLE IV.3—EQUIPMENT LINEAR DIMENSIONS ASSUMED FOR SHIPMENTS ANALYSIS

Equipment class	Assumed length ft	Basis
VOP.RC.M	10	Average of 8 ft and 12 ft, manufacturer interviews.
VOP.RC.L	10	Average of 8 ft and 12 ft, manufacturer interviews.
VOP.SC.M	4	Baseline equipment used for engineering analysis.
SVO.RC.M	10	Average of 8 ft and 12 ft, manufacturer interviews.
SVO.SC.M	4	Baseline equipment used for engineering analysis.
HZO.RC.M	10	Average of 8 ft and 12 ft, manufacturer interviews.
HZO.RC.L	10	Average of 8 ft and 12 ft, manufacturer interviews.
HZO.SC.M	4	Baseline equipment used for engineering analysis.
HZO.SC.L	4	Baseline equipment used for engineering analysis.
VCT.RC.M	10	Average of 3-door and 5-door (30 in. per door), manufacturer interviews.
VCT.RC.L	10	Average of 3-door and 5-door (3 in. per door), manufacturer interviews.
VCT.SC.M	4	Engineering estimate.*
VCT.SC.L	3.5	Average of 1-door and 2-door freezer.
VCT.SC.I	5	Baseline equipment used for engineering analysis.
VCS.SC.M	4	Engineering estimate.*
VCS.SC.L	3.5	Average of 1-door and 2-door freezer.
VCS.SC.I	5	Baseline equipment used for engineering analysis.
HCT.SC.M	3	Engineering estimate.*
HCT.SC.L	3	Engineering estimate.*
HCT.SC.I	3.4	Baseline equipment used for engineering analysis.
HCS.SC.M	4	Engineering estimate.*
HCS.SC.L	5	Engineering estimate.*
SOC.RC.M	8	Average of 4 ft, 8 ft, 12 ft, all common equipment lengths.
PD.SC.M	2.5	Baseline equipment used for engineering analysis.
SOC.SC.M	5	Engineering estimate.*

* For equipment classes that exhibit a wide range of equipment lengths in the market, DOE assumed a value for equipment length based on its best engineering judgment.

DOE converted the estimated 2009 shipments data in each equipment class to percentages of total shipped linear feet of commercial refrigeration equipment for use in the shipments model. This established the commercial refrigeration equipment market share attributed to each equipment class. DOE calculated the percentage of shipped linear footage by dividing the linear footage shipped for each equipment class by the overall linear footage shipped for all commercial refrigeration equipment covered in this rulemaking.

Table IV.4 summarizes DOE's estimated division of historical annual shipments into new and replacement categories by building type. The distributions shown in Table IV.4 result from several discrete steps. First, equipment types were identified by the type of business they generally serve. For example, vertical open cases with remote compressors are associated with large grocers and multi-line retail stores. Remote condensing equipment is generally associated with retail stores that sell high volumes of perishable goods, while self-contained units are associated with foodservice and convenience or small food sales stores. When there was no strong association between the building type and equipment class, equipment was distributed across broader classes. Second, a ratio of new versus replacement equipment was developed based on commercial floor space estimates (floor space estimates are discussed below). Using the expected useful life of commercial refrigeration equipment and commercial floor space stock, additions, and retirements, ratios were developed of new versus replacement stock for use in this analysis. Using these and related factors (*e.g.,* the division of foodservice into the three building types—limited service restaurants, full-service restaurants, and other), DOE distributed commercial refrigeration equipment shipments among building types and new versus replacement shipments, as shown in Table IV.4.

TABLE IV.4—ESTIMATED DISTRIBUTION OF 2009 LINEAR FEET OF COMMERCIAL REFRIGERATION EQUIPMENT SHIPMENTS AMONG NEW VS. REPLACEMENT EQUIPMENT

Building type	Replacement (percent)	New (percent)	Total (percent)
Large Grocery/Multi-Line Retail	30.5	8.6	39.1
Small Grocery/Convenience	14.6	4.1	18.7
Limited Service Restaurants	9.4	3.3	12.7
Full Service Restaurants	9.8	3.4	13.2
Other	12.1	4.2	16.3
Total	76.4	23.6	100.0

Table IV.5 shows the forecasted square footage of new construction used to scale annual new commercial refrigeration equipment shipments. As the data in Table IV.5 show, forecasted square footage additions to the building stocks vary from year to year, with the first few years of the analyzed period exhibiting lower levels of growth due to predicted lingering impacts of the U.S. economic recession. The forecasted commercial refrigeration equipment shipments therefore show some variability as well, tracking the forecasted square footage floor space additions. The growth rates over the last 10 years of the *AEO2013* forecast (2031 through 2040) were used to extend the *AEO* forecast out until the year 2046 to develop the full 30-year forecast needed for the NIA.

TABLE IV.5—*AEO2013* FORECAST OF NEW FOOD SALES AND FOODSERVICE SQUARE FOOTAGE

Year	New construction million ft^2	
	Foodservice	Food sales
2009	47.715	34.070
2012	31.455	22.149
2017	49.076	34.496
2020	47.617	33.447
2025	47.522	33.416
2030	53.630	37.836
2035	55.536	39.107
2040	55.814	39.243
Annual Growth Factor, 2031–2040	2.41%	2.27%

Source: U.S. Energy Information Administration, *Annual Energy Outlook 2013.*

DOE then estimated the annual linear footage shipped for each of the 24 primary equipment classes. The shipments analysis relies on the 24 primary equipment classes to represent the commercial refrigeration equipment market. Table IV.6 shows the fraction of the linear footage shipped by each of these 24 equipment classes.

TABLE IV.6—PERCENT OF SHIPPED LINEAR FEET OF COMMERCIAL REFRIGERATION EQUIPMENT

Equipment class	Percentage of linear feet shipped*
VOP.RC.M	11.59
VOP.RC.L	0.61
VOP.SC.M	0.82
SVO.RC.M	9.30
SVO.SC.M	1.23
HZO.RC.M	1.43
HZO.RC.L	4.49
HZO.SC.M	0.11
HZO.SC.L	0.22
VCT.RC.M	0.87
VCT.RC.L	12.11
VCT.SC.M	5.46
VCT.SC.L	0.27
VCT.SC.I	0.30
VCS.SC.M	22.11
VCS.SC.L	11.25
VCS.SC.I	0.07
HCT.SC.M	0.07
HCT.SC.L	0.43
HCT.SC.I	0.48
HCS.SC.M	5.01
HCS.SC.L	0.65
SOC.RC.M	2.34
PD.SC.M	8.58

TABLE IV.6—PERCENT OF SHIPPED LINEAR FEET OF COMMERCIAL REFRIGERATION EQUIPMENT—Continued

Equipment class	Percentage of linear feet shipped*
SOC.SC.M	0.17

*The percentages in this column do not sum to 100 percent because shipments of secondary equipment classes and certain other equipment classes that were not analyzed in this rulemaking were not included.

The amount of new and existing commercial floor space is the main driver for commercial refrigeration equipment shipments, and is appropriately one of the basic inputs into the shipments model. The model divides commercial space into two components: space from new construction floor space and space from existing floor space.

DOE took the projected floor space construction after the year 2009 from the NEMS projection underlying *AEO2013*.[70] DOE extracted annual estimates of new floor space additions from an *AEO2013* data file (kdbout) for the period from 2009 through 2040. As stated earlier, the last 10 years of the *AEO* forecast were used to develop growth rates used to extend the forecast to 2046.

Detailed description of the procedure to calculate future shipments is presented in chapter 9 of NOPR TSD.

[70] U.S. Energy Information Administration. *Annual Energy Outlook 2013.* Washington, DC. DOE/EIA–0383(2013).

Comments related to shipment analysis received during the April 2011 preliminary analysis public meeting are listed below, along with DOE's responses to the comments.

a. VOP.RC.L Shipments

At the April 2011 preliminary analysis public meeting, Southern Store Fixtures stated that vertical open freezers represent far less than the figure of 1.9 percent of the commercial refrigeration equipment shipments that DOE included in the preliminary analysis TSD. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 123) In a written comment, NEEA referenced this statement by Southern Store Fixtures, urging DOE to ensure the accuracy of its shipments data for the VOP.RC.L equipment class, but stating that it generally agreed with DOE's shipments analysis. (NEEA, No. 36 at p. 6)

Shipments estimates for VOP.RC.L were not explicitly stated in the ARI 2005 Report. DOE assumed that these shipments numbers were likely grouped with those of VOP.RC.M. For the preliminary analysis, DOE allocated a portion of VOP.RC.M shipments to the VOP.RC.L equipment class. In response to the comments from Southern Store Fixtures and based on new evidence, DOE reduced the portion of VOP.RC.M shipments (obtained from the ARI 2005 Report) that it allocated to the VOP.RC.L equipment class.

b. Shipments by End User Type

Southern Store Fixtures stated that the shipments estimates presented in

the preliminary analysis for new equipment for large supermarkets and smaller markets did not appear to reflect the assumption of 10- and 15-year equipment lifetimes. Specifically, Southern Store Fixtures pointed out that the replacement shipment numbers were much higher than the new shipments in the small grocery store segment. Southern Store Fixtures pointed out that because the equipment life in small grocery stores is 15 years, compared to 10 years in large grocery stores, the ratio of replacement shipments to new shipments for small grocery stores should be smaller than the same ratio for large grocery stores. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 124)

Small grocery stores and convenience stores house many self-contained units. In many stores, self-contained units comprise most of the refrigeration load, when the refrigeration from walk-in cold rooms is discounted (as it does not belong in the commercial refrigeration equipment rulemaking). In the current rulemaking, all self-contained units are assumed to have an average lifetime of 10 years. Therefore, the ratio of replacement shipments to new shipments in small grocery stores and convenience stores is dictated largely by the 10-year lifetime of self-contained units, and is relatively less impacted by the 15-year lifetime of remote condensing display cases, which form a much smaller share of the commercial refrigeration equipment found in small grocery and convenience stores. DOE believes that this factor explains the apparent discrepancy highlighted in the comment by Southern Store Fixtures.

Traulsen expressed the belief that DOE's values for projected shipments for the foodservice building type, as well as its projected shipments by equipment class, were low. (Traulsen, No. 45 at p. 4)

DOE calculated future shipments based on forecasted square footage of new construction, obtained from the *AEO* forecast and historical shipments data. The ratio of floor space occupied by commercial refrigeration equipment to the total commercial floor space is much smaller in foodservice buildings than in food sales buildings such as grocery stores. Further, DOE converted the historical shipment numbers from number of units into number of linear feet by multiplying the number of units by the average linear feet of equipment. Commercial refrigeration equipment used in the foodservice industry is overwhelmingly dominated by self-contained equipment, which, on an average, has a shorter length compared to the remote condensing equipment found in grocery stores. A combination of these factors results in the shipments numbers (in linear feet) to foodservice buildings being much lower than shipments numbers to food sales buildings. However, in terms of number of units shipped, the proportion of shipments to foodservice buildings is much higher as compared to shipments to food sales buildings.

c. Shipments Forecasts

Traulsen commented that overly aggressive performance standards are likely to add costs that will be passed along to the customer, resulting in stunted market growth and retention of less-efficient units. Traulsen estimated that equipment prices have increased 1–2 percent based on variable manufacturing cost increases alone as a result of the need to comply with the standards set by EPACT 2005. (Traulsen, No. 45 at p. 6)

DOE does not have detailed information on the historical shipments data of various types of commercial refrigeration equipment by equipment classes. As described in earlier in this section, DOE extracted shipments data from certain publications and estimated the shipments by equipment class. The ARI 2005 report only contains shipments data for the year 2005. With the available shipments data for commercial refrigeration equipment, its difficult to determine the impact of price increases on future shipments.

Regarding display cases, which are predominantly used in supermarkets and grocery stores, DOE believes that replacement of display cases is largely performed during store remodeling, and that the major driving factor behind remodeling is the need to improve aesthetics. Decisions regarding store remodeling are influenced by many factors, including overall future economic outlook and availability of capital, and DOE believes that equipment price increases do not figure as the major factor. DOE recognizes that, on the other hand, foodservice establishments may be more sensitive to equipment prices. The equipment that is predominantly used in this sector is composed of refrigerators and freezers with solid doors. The MSP increases related to the higher efficiency refrigerators and freezers were estimated as part of the engineering analysis, and were found to be 6 to 8 percent of the baseline MSPs. The effect of amended DOE standards could be that foodservice establishments extend the life of their existing equipment. DOE expects that this effect will result in a slight dip in shipments only in the early years after amended standards go into effect because the old equipment will have to be replaced eventually. The effect of such a dip will not have a significant impact on the NIA, which is carried out over a 30-year period. Extending the life of the existing equipment may also result in higher maintenance and repair costs that may offset part or all of the apparent customer savings.

DOE welcomes stakeholder input in this regard, as the information currently available to DOE is not sufficient to determine the impact of price increases on future shipments of commercial refrigeration equipment.

2. Forecasted Efficiency in the Base Case and Standards Cases

The method for estimating the market share distribution of efficiency levels is presented in section IV.H.9, and a detailed description can be found in chapter 11 of the NOPR TSD. To estimate efficiency trends in the standards cases, DOE uses a ''roll-up'' scenario in its standards rulemakings. Under the roll-up scenario, DOE assumes that equipment efficiencies in the base case that do not meet the standard level under consideration would ''roll up'' to meet the new standard level, and equipment efficiencies above the standard level under consideration would be unaffected. Table IV.7 shows the shipment-weighted market shares by efficiency level in the base-case scenario.

TABLE IV.7—SHIPMENT-WEIGHTED MARKET SHARES BY EFFICIENCY LEVEL, BASE CASE

Equipment class	Shipment-weighted market shares by efficiency level * **							
	Level 1 (percent)	Level 2 (percent)	Level 3 (percent)	Level 4 (percent)	Level 5 (percent)	Level 6 (percent)	Level 7 (percent)	Level 8 (percent)
VOP.RC.M	24.3	24.0	23.4	13.4	12.8	2.0	NA	NA
VOP.RC.L	26.0	26.1	23.2	22.4	2.2	NA	NA	NA
VOP.SC.M	19.1	19.0	18.8	18.1	11.3	10.7	3.1	NA

TABLE IV.7—SHIPMENT-WEIGHTED MARKET SHARES BY EFFICIENCY LEVEL, BASE CASE—Continued

Equipment class	Shipment-weighted market shares by efficiency level * **							
	Level 1 (percent)	Level 2 (percent)	Level 3 (percent)	Level 4 (percent)	Level 5 (percent)	Level 6 (percent)	Level 7 (percent)	Level 8 (percent)
VCT.RC.M	18.8	18.8	15.9	15.5	14.8	14.5	1.7	NA
VCT.RC.L	19.5	20.4	20.0	19.4	19.0	1.8	NA	NA
VCT.SC.M	16.7	17.4	15.5	13.0	12.6	11.7	11.5	1.7
VCT.SC.L	10.5	13.3	16.4	16.2	14.4	14.2	13.1	2.0
VCT.SC.I	16.4	18.1	17.8	15.9	15.5	14.8	1.5	NA
VCS.SC.M	13.1	14.9	15.0	15.0	14.6	14.0	12.6	0.8
VCS.SC.L	12.1	15.1	15.3	15.4	14.3	13.9	13.3	0.6
VCS.SC.I	16.7	16.8	17.4	17.0	16.0	15.4	0.7	NA
SVO.RC.M	24.5	24.5	22.2	13.2	12.6	3.0	NA	NA
SVO.SC.M	19.5	19.5	18.5	18.0	10.8	10.1	3.7	NA
SOC.RC.M	17.7	17.8	17.8	14.5	14.1	12.7	5.4	NA
HZO.RC.M	78.4	21.6	NA	NA	NA	NA	NA	NA
HZO.RC.L	86.2	13.8	NA	NA	NA	NA	NA	NA
HZO.SC.M	25.4	25.4	25.0	21.9	2.4	NA	NA	NA
HZO.SC.L	71.8	28.2	NA	NA	NA	NA	NA	NA
HCT.SC.M	14.8	15.4	15.6	15.7	13.4	12.8	11.0	1.4
HCT.SC.L	12.3	13.3	13.6	15.8	15.6	15.0	13.2	1.2
HCT.SC.I	25.6	25.8	25.1	22.3	1.1	NA	NA	NA
HCS.SC.M	17.2	17.5	17.2	16.8	15.9	13.3	2.1	NA
HCS.SC.L	17.2	17.5	17.2	16.8	16.6	14.5	1.5	NA
PD.SC.M	14.0	17.2	16.1	15.8	15.3	11.0	9.7	1.0
SOC.SC.M	14.7	15.1	15.1	15.0	12.5	12.1	11.0	4.6

* "NA" means that no market share was calculated for this efficiency level. For example, the VOP.RC.M equipment class only had six possible efficiency levels, so no market share was allotted to Efficiency Levels 7 and 8.
** Shares may not add to 100 percent exactly due to rounding.

3. National Energy Savings

For each year in the forecast period, DOE calculates the NES for each potential standard level by multiplying the stock of equipment affected by the energy conservation standards by the estimated per-unit annual energy savings. DOE typically considers the impact of a rebound effect, introduced in the energy use analysis, in its calculation of NES for a given product. A rebound effect occurs when users operate higher efficiency equipment more frequently and/or for longer durations, thus offsetting estimated energy savings. However, DOE used a rebound factor of 1, or no effect, for commercial refrigeration equipment because it is operates 24 hours a day, and therefore there is no potential for a rebound effect.

Major inputs to the calculation of NES are annual unit energy consumption, shipments, equipment stock, a site-to-source conversion factor, and a full fuel cycle factor.

The annual unit energy consumption is the site energy consumed by a commercial refrigeration unit in a given year. Because the equipment classes analyzed represent equipment sold across a range of sizes, DOE's ''unit'' in the NES is actually expressed as a linear foot of equipment in an equipment class, and not an individual unit of commercial refrigeration equipment of a specific size. DOE determined annual forecasted shipment-weighted average equipment efficiencies that, in turn, enabled determination of shipment-weighted annual energy consumption values.

The commercial refrigeration equipment stock in a given year is the total linear footage of commercial refrigeration equipment shipped from earlier years (up to 15 years, depending on the type of equipment) that is in use in that year. The NES spreadsheet model keeps track of the total linear footage of commercial refrigeration units shipped each year. For purposes of the NES and NPV analyses conducted for the NOPR, DOE assumed that, based on 15-year and 10-year average equipment lifetimes, approximately 6.67 and 10 percent, respectively, of the existing commercial refrigeration units are retired in each year. DOE assumes that, for units shipped in 2046, any units remaining at the end of 2060 will be replaced.

DOE has historically presented NES in terms of primary energy savings. In response to the recommendations of a committee on ''Point-of-Use and Full-Fuel-Cycle Measurement Approaches to Energy Efficiency Standards'' appointed by the National Academy of Science, DOE announced its intention to use full-fuel-cycle (FFC) measures of energy use and greenhouse gas and other emissions in the national impact analyses and emissions analyses included in future energy conservation standards rulemakings. 76 FR 51281 (August 18, 2011) While DOE stated in that notice that it intended to use the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model to conduct the analysis, it also said it would review alternative methods, including the use of NEMS. After evaluating both models and the approaches discussed in the August 18, 2011 notice, DOE published a statement of amended policy in the **Federal Register** in which DOE explained its determination that NEMS is a more appropriate tool for its FFC analysis and its intention to use NEMS for that purpose. 77 FR 49701 (August 17, 2012). DOE received one comment, which was supportive of the use of NEMS for DOE's FFC analysis.[71]

The approach used for today's NOPR, and the FFC multipliers that were applied, are described in appendix 10D of the NOPR TSD. NES results are presented in both primary and FFC savings in section V.B.3.a.

4. Net Present Value of Customer Benefit

The inputs for determining the NPV of the total costs and benefits experienced by customers of the commercial refrigeration equipment are: (1) total annual installed cost; (2) total

[71] Docket ID: EERE–2010–BT–NOA–0028, comment by Kirk Lundblade.

annual savings in operating costs; and (3) a discount factor. DOE calculated net national customer savings for each year as the difference between the base-case scenario and standards-case scenarios in terms of installation and operating costs. DOE calculated operating cost savings over the life of each piece of equipment shipped in the forecast period.

DOE multiplied monetary values in future years by the discount factor to determine the present value of costs and savings. DOE estimated national impacts using both a 3-percent and a 7-percent real discount rate as the average real rate of return on private investment in the U.S. economy. These discount rates are used in accordance with the Office of Management and Budget (OMB) guidance to Federal agencies on the development of regulatory analysis (OMB Circular A–4, September 17, 2003), and section E, ''Identifying and Measuring Benefits and Costs,'' therein. DOE defined the present year as 2013 for the NOPR analysis. The 7-percent real value is an estimate of the average before-tax rate of return to private capital in the U.S. economy. The 3-percent real value represents the ''societal rate of time preference,'' which is the rate at which society discounts future consumption flows to their present.

5. Benefits From Effects of Amended Standards on Energy Prices

The reduction in electricity consumption associated with amended standards for commercial refrigeration equipment could reduce the electricity prices charged to customers in all sectors of the economy, and thereby reduce electricity expenditures. In chapter 2 of the preliminary analysis TSD, DOE explained that, because the power industry is a complex mix of fuel and equipment suppliers, electricity producers, and distributors, it did not plan to estimate the value of potentially reduced electricity costs for all customers associated with new or amended standards for refrigeration products.

For this rulemaking, DOE used NEMS–BT to assess the impacts of the reduced need for new electric power plants and infrastructure projected to result from amended standards. In NEMS–BT, changes in power generation infrastructure affect utility revenue requirements, which in turn affect electricity prices. DOE estimated the impact on electricity prices associated with each considered TSL. Although the aggregate benefits for electricity users are potentially large, there may be negative effects on some involved in electricity supply, particularly power plant providers and fuel suppliers. DOE has concluded that, at present, it should not give significant weighting to this factor (aggregate benefit to customers due to reductions in electricity prices) in its consideration of the justification of the amended standards because there is uncertainty about the extent to which the benefits to electricity users from reduced electricity prices would represent a transfer from those involved in electricity supply to electricity customers. DOE is continuing to investigate the extent to which electricity price changes projected to result from amended standards represent a net gain to society.

J. Customer Subgroup Analysis

In analyzing the potential impact of new or amended standards on commercial customers, DOE evaluates the impact on identifiable groups (*i.e.,* subgroups) of customers, such as different types of businesses that may be disproportionately affected. Based on data from the 2007 U.S. Economic Census and size standards set by the U.S. Small Business Administration (SBA), DOE determined that a majority of convenience stores and restaurants fall under the definition of small businesses (see chapter 11 of NOPR TSD for details). Small businesses typically face higher cost of capital. In general, the lower the cost of electricity and higher the cost of capital, the more likely it is that an entity would be disadvantaged by the requirement to purchase higher efficiency equipment. Table IV.8 and Table IV.9 present average commercial electricity prices by business type and discount rates by building types, respectively.

Comparing the small grocery and convenience store category to the convenience store with gas station category, both face the same cost of capital, but convenience stores with gas stations generally incur lower electricity prices. Therefore, convenience stores with gas stations were chosen for LCC subgroup analysis in the food-retail segment.

In the foodservice segment, limited service restaurants and full-service restaurants have similar electricity price and discount rates, with limited service restaurants paying slightly lower electricity rates and full-service restaurants facing a slightly higher cost of capital. DOE chose to study full-service restaurants for the LCC subgroup analysis in the foodservice segment because a higher percentage of full-service restaurants tend to be operated by independent small business concerns, as compared to a majority of fast-food restaurants which are owned by or affiliated with national restaurant chains.

DOE estimated the impact on the identified customer subgroups using the LCC spreadsheet model. The standard LCC analysis (described in section IV.H) includes various types of businesses that use commercial refrigeration equipment. For the LCC subgroup analysis, it was assumed that the subgroups analyzed do not have access to national commercial refrigeration equipment purchasing accounts and, consequently, face a higher distribution channel markup. Further, electricity rates and discount rates differ among these subgroups. Details of the data used for LCC subgroup analysis and results are presented in chapter 11 of the NOPR TSD.

TABLE IV.8—DERIVED AVERAGE COMMERCIAL ELECTRICITY PRICE BY BUSINESS TYPE

Business type	Electricity price cents/kWh	Ratio of electricity price to average price for all commercial buildings
Grocery store/food market	0.07222	0.910
Convenience store *	0.08583	1.082
Convenience store with gas station	0.07722	0.973
Multi-line retail **	0.07262	0.915
Limited service restaurant	0.07962	1.003
Full service restaurant	0.08467	1.067
Other foodservice	0.07664	0.966
All commercial buildings	0.07936	1.000

Source: Commercial Buildings Energy Consumption Survey 2003.

This group is assumed to include convenience stores without gas stations, specialty stores (such as meat markets), and beer, wine, and liquor stores.

** This group is assumed to include mainly large multi-line retailers and supercenters that sell both grocery and non-grocery items.

TABLE IV.9—DERIVATION OF REAL DISCOUNT RATES BY BUILDING TYPE

Building type description	Major chain		Local or non-chain		Governmental		Discount rate (percent)	No. Obs.†
	WACC * (percent)	Percent of stock	Small frm premium ** (percent)	Percent of stock	Muni bond rate (percent)	Percent of stock		
Large Grocery	4.16	100	0.0	0	0	0	4.16	18
Small Grocery & Convenience	4.20	50	1.9	50	0	0	5.19	5
Gas Station With Convenience Store	4.20	50	1.9	50	0	0	5.19	NA
Multi-Line Retail	4.33	100	0.0	0	0	0	4.33	6
Restaurant—Limited Service	5.29	50	1.9	50	0	0	6.29	21
Restaurant—Full Service	5.61	50	1.9	50	0	0	6.62	24
Restaurant—Other Foodservice	5.61	25	1.9	25	2.34	50	4.48	NA

Source: Pacific Northwest National Laboratory (PNNL) Weighted Average Cost of Capital (WACC) calculations applied to firms sampled from the Damodaran Online web site (*http://pages.stern.nyu.edu/~adamodar/New_Home_Page/papers.html*). Assumptions for weighting factors for convenience and foodservice reflect lack of reliable data sources. The estimate of inflation used to translate nominal rates to real rates is based on a 40-year (1971–2010) average gross domestic product deflator (3.832 percent).

* WACC stands for weighted-average cost of capital. See chapter 8 of the NOPR TSD for additional details.

** Small Firm Premium refers to higher premium paid by smaller firms that face higher risks of loss of invested capital. Source: Small Business Administration data on loans between $10,000 and $99,000 compared to AAA Corporate Rates. *http://www.sba.gov/advocacy/7540/6282.* Data compiled 6/20/2013.

† "NA" means no Damodaran observations available.

K. Manufacturer Impact Analysis

1. Overview

DOE performed an MIA to estimate the financial impact of amended energy conservation standards on manufacturers of commercial refrigeration equipment and to calculate the impact of such standards on employment and manufacturing capacity. The MIA has both quantitative and qualitative aspects. The quantitative part of the MIA primarily relies on the Government Regulatory Impact Model (GRIM), an industry cash-flow model with inputs specific to this rulemaking. The key GRIM inputs are data on the industry cost structure, product costs, shipments, and assumptions about markups and conversion expenditures. The key output is the INPV. Different sets of markup scenarios will produce different results. The qualitative part of the MIA addresses factors such as equipment characteristics, impacts on particular subgroups of manufacturers, and important market and product trends. The complete MIA is outlined in chapter 12 of the NOPR TSD.

DOE conducted the MIA for this rulemaking in three phases. In Phase 1 of the MIA, DOE prepared a profile of the commercial refrigeration equipment industry that includes a top-down cost analysis of manufacturers used to derive preliminary financial inputs for the GRIM (*e.g.,* sales general and administration (SG&A) expenses; research and development (R&D) expenses; and tax rates). DOE used public sources of information, including company SEC 10–K filings, corporate annual reports, the U.S. Census Bureau's Economic Census, and Hoover's reports.

In Phase 2 of the MIA, DOE prepared an industry cash-flow analysis to quantify the impacts of an amended energy conservation standard. In general, more-stringent energy conservation standards can affect manufacturer cash flow in three distinct ways: (1) by creating a need for increased investment; (2) by raising production costs per unit; and (3) by altering revenue due to higher per-unit prices and possible changes in sales volumes.

In Phase 3 of the MIA, DOE conducted structured, detailed interviews with a representative cross-section of manufacturers. During these interviews, DOE discussed engineering, manufacturing, procurement, and financial topics to validate assumptions used in the GRIM and to identify key issues or concerns. See section IV.K.4 for a description of the key issues manufacturers raised during the interviews.

Additionally, in Phase 3, DOE evaluated subgroups of manufacturers that may be disproportionately impacted by amended standards, or that may not be accurately represented by the average cost assumptions used to develop the industry cash-flow analysis. For example, small manufacturers, niche players, or manufacturers exhibiting a cost structure that largely differs from the industry average could be more negatively affected.

DOE identified one subgroup, small manufacturers, for separate impact analyses. DOE applied the small business size standards published by the SBA to determine whether a company is considered a small business. 65 FR 30836, 30848 (May 15, 2000), as amended at 65 FR 53533, 53544 (Sept. 5, 2000) and codified at 13 CFR part 121. To be categorized as a small business under North American Industry Classification System (NAICS) 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing,'' a commercial refrigeration manufacturer and its affiliates may employ a maximum of 750 employees. The 750-employee threshold includes all employees in a business's parent company and any other subsidiaries. Based on this classification, DOE identified at least 32 commercial refrigeration equipment manufacturers that qualify as small businesses. The commercial refrigeration equipment small manufacturer subgroup is discussed in chapter 12 of the NOPR TSD and in section VI.B.1 of this notice.

2. Government Regulatory Impact Model

DOE uses the GRIM to quantify the changes in the commercial refrigeration equipment industry cash flow due to amended standards that result in a higher or lower industry value. The GRIM analysis uses a standard, annual cash-flow analysis that incorporates manufacturer costs, markups, shipments, and industry financial information as inputs, and models changes in costs, investments, and manufacturer margins that would result from new and amended energy conservation standards. The GRIM spreadsheet uses the inputs to arrive at a series of annual cash flows, beginning with the base year of the analysis, 2013 in this case, and continuing to 2046. DOE calculated INPVs by summing the stream of annual discounted cash flows during this period. For commercial refrigeration equipment manufacturers, DOE used a real discount rate of 10 percent. DOE's discount rate estimate was derived from industry financials and then modified according to feedback during manufacturer interviews.

The GRIM calculates cash flows using standard accounting principles and compares changes in INPV between a base case and various TSLs (the standards cases). The difference in INPV between the base case and a standards case represents the financial impact of the amended standard on manufacturers. As discussed previously, DOE collected the information on the critical GRIM inputs from a number of sources, including publicly available data and interviews with a number of manufacturers (described in the next section). The GRIM results are shown in section V.B.2.a. Additional details about the GRIM can be found in chapter 12 of the NOPR TSD.

a. Government Regulatory Impact Model Key Inputs

Manufacturer Production Costs

Manufacturing a higher efficiency product is typically more expensive than manufacturing a baseline product due to the use of more complex components, which are more costly than baseline components. The changes in the MPCs of the analyzed products can affect the revenues, gross margins, and cash flow of the industry, making these product cost data key GRIM inputs for DOE's analysis.

In the MIA, DOE used the MPCs for each considered efficiency level calculated in the engineering analysis, as described in section IV.C and further detailed in chapter 5 of the NOPR TSD. In addition, DOE used information from its teardown analysis, described in section IV.E.4.a, to disaggregate the MPCs into material, labor, and overhead costs. To calculate the MPCs for equipment above the baseline, DOE added incremental material, labor, overhead costs from the engineering cost-efficiency curves to the baseline MPCs. These cost breakdowns and equipment markups were validated with manufacturers during manufacturer interviews.

Base-Case Shipments Forecast

The GRIM estimates manufacturer revenues based on total unit shipment forecasts and the distribution of these values by efficiency level. Changes in sales volumes and efficiency mix over time can significantly affect manufacturer finances. For this analysis, the GRIM uses the NIA's annual shipment forecasts derived from the shipments analysis from 2013, the base year, to 2046, the end of the analysis period. See chapter 9 of the NOPR TSD for additional details.

Product and Capital Conversion Costs

Amended energy conservation standards will cause manufacturers to incur conversion costs to bring their production facilities and product designs into compliance. For the MIA, DOE classified these conversion costs into two major groups: (1) Product conversion costs and (2) capital conversion costs. Product conversion costs are investments in research, development, testing, marketing, and other non-capitalized costs necessary to make product designs comply with a new or amended energy conservation standard. Capital conversion costs are investments in property, plant, and equipment necessary to adapt or change existing production facilities such that new product designs can be fabricated and assembled.

To evaluate the level of capital conversion expenditures manufacturers would likely incur to comply with amended energy conservation standards, DOE used manufacturer interviews to gather data on the level of capital investment required at each efficiency level. DOE validated manufacturer comments through estimates of capital expenditure requirements derived from the product teardown analysis and engineering model described in section IV.E.4.

DOE assessed the equipment conversion costs at each level by integrating data from quantitative and qualitative sources. DOE considered feedback regarding the potential costs of each efficiency level from multiple manufacturers to determine conversion costs such as R&D expenditures and certification costs. Manufacturer data were aggregated to better reflect the industry as a whole and to protect confidential information.

In general, DOE assumes that all conversion-related investments occur between the year of publication of the final rule and the year by which manufacturers must comply with an amended standard. The investment figures used in the GRIM can be found in section V.B.2.a of this notice. For additional information on the estimated product conversion and capital conversion costs, see chapter 12 of the NOPR TSD.

b. Government Regulatory Impact Model Scenarios

Markup Scenarios

As discussed above, MSPs include direct manufacturing production costs (*i.e.,* labor, material, and overhead estimated in DOE's MPCs) and all non-production costs (*i.e.,* SG&A, R&D, and interest), along with profit. To calculate the MSPs in the GRIM, DOE applied markups to the MPCs estimated in the engineering analysis and then added in the cost of shipping. Modifying these markups in the standards case yields different sets of impacts on manufacturers. For the MIA, DOE modeled two standards-case markup scenarios to represent the uncertainty regarding the potential impacts on prices and profitability for manufacturers following the implementation of amended energy conservation standards: (1) A preservation of gross margin percentage markup scenario; and (2) a preservation of operating profit markup scenario. These scenarios lead to different markups values that, when applied to the inputted MPCs, result in varying revenue and cash flow impacts.

Under the preservation of gross margin percentage scenario, DOE applied a single uniform ''gross margin percentage'' markup across all efficiency levels. As production costs increase with efficiency, this scenario implies that the absolute dollar markup will increase as well. Based on publicly available financial information for manufacturers of commercial refrigeration equipment and comments from manufacturer interviews, DOE assumed the non-production cost markup—which includes SG&A expenses, R&D expenses, interest, and profit—to be 1.42. Because this markup scenario assumes that manufacturers would be able to maintain their gross margin percentage markups as production costs increase in response to

an amended energy conservation standard, the scenario represents a high bound to industry profitability under an amended energy conservation standard.

In the preservation of operating profit scenario, manufacturer markups are set so that operating profit 1 year after the compliance date of the amended energy conservation standard is the same as in the base case. Under this scenario, as the cost of production and the cost of sales go up, manufacturers are generally required to reduce their markups to a level that maintains base-case operating profit. The implicit assumption behind this markup scenario is that the industry can only maintain its operating profit in absolute dollars after compliance with the amended standard is required. Therefore, operating margin in percentage terms is squeezed (reduced) between the base case and standards case. DOE adjusted the manufacturer markups in the GRIM at each TSL to yield approximately the same earnings before interest and taxes in the standards case in the year after the compliance date of the amended standards as in the base case. This markup scenario represents a low bound to industry profitability under an amended energy conservation standard.

3. Discussion of Comments

During the April 2011 preliminary analysis public meeting, interested parties commented on the assumptions and results of the preliminary analysis TSD. Oral and written comments addressed several topics, including testing and certification, cumulative regulatory burden, small manufacturers, and manufacturer markups.

a. Testing and Certification

At the public meeting and in written comments, several stakeholders expressed concern to DOE regarding the potential burden of testing.

Traulsen stated that certification, compliance, and enforcement (CC&E) is its most significant cost item in terms of internal resources in the form of time and direct expenses. Traulsen further explained that, with respect to the manufacturer impacts, the three most important topics are CC&E, testing burden, and compliance with other (unspecified) certifications. (Traulsen, No. 45 at pp. 4–5) NEEA expressed the opinion that the most significant issue associated with manufacturer impacts is testing and compliance for a wide array of equipment offerings, especially given the large number of variations on single models. AHRI also stated that the CC&E requirements put in place by DOE have the potential to bankrupt the industry due to the excessive number of tests required. (AHRI, No. 43 at p. 3) True added that it believed there are economies of scale in testing commercial refrigeration equipment units. (True, Public Meeting Transcript, No. 31 at p. 151) True also stated that the testing and regulatory burden, including tooling, fixturing, and setup costs imposed on small production runs is an issue for large manufacturers as well as small manufacturers. (True, Public Meeting Transcript, No. 31 at pp. 206, 210) NEEA expressed agreement with manufacturers that testing each variation would create a significant potential burden, especially on small manufacturers. (NEEA, No. 36 at p. 7) In addition, Southern Store Fixtures stated that it would be difficult to produce information to estimate the compliance testing burden on manufacturers, as the certification and compliance requirements had not yet been finalized. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 149–50) Southern Store Fixtures added that it is impossible to determine potential impacts of testing and certification on manufacturers until the definition of a basic model is clarified. (Southern Store Fixtures, No. 38 at p. 1)

DOE recognizes industry concerns regarding CC&E testing requirements. Although CC&E costs are not directly analyzed in the GRIM because they do not vary with different standard levels, the CC&E burden is identified as a key issue and as a cumulative regulatory burden in the MIA. DOE intends to address these manufacturer concerns in ongoing CC&E rulemakings. Moreover, DOE is currently considering alternative efficiency determination methods (AEDMs) for commercial refrigeration equipment and issued a notice of proposed rulemaking on Alternative Efficiency Determination Methods and Alternative Rating Methods in May 2012. 77 FR 32038 (May 31, 2012). AEDMs are computer modeling tools used to establish a model's efficiency rating in lieu of testing. More information about the AEDM rulemaking can be found at: *www1.eere.energy.gov/buildings/appliance_standards/certification_enforcement.html*.

While the GRIM does not account for DOE certification costs, it does account for industry certification (*i.e.,* Underwriters Laboratories (UL) and NSF testing) and research and development costs in its analysis of product conversion costs, which are associated with a change in standards. The change in INPV, the primary output of the GRIM, reflects the possible increase in industry certification costs and is considered by DOE when proposing a standard.

b. Cumulative Regulatory Burden

Numerous stakeholders commented on the cumulative regulatory burden tied to DOE efficiency standards. Some stakeholders expressed concern regarding potential conflicts with other certification programs. Traulsen stated that the redundancy of testing required by other Federal programs (such as EPA ENERGY STAR®),[72] potentially involves conflicting criteria, increases cost, and that cross-references to databases with inconsistent tests, classes, and enforcement requirements adds further complications. Traulsen estimated that the financial burden associated with meeting both DOE and EPA ENERGY STAR requirements has been greater than 0.5 percent of revenue, and that it would be beneficial to reconcile the differences between DOE and EPA standards. (Traulsen, No. 45 at pp. 5–6) NEEA stated that the burden of certifications and associated testing is inherent in the manufacturing industry, and that this burden should have little to do with the current standards rulemaking. However, NEEA added, any steps that can be taken to harmonize test methods and procedures between certifications should be taken. (NEEA, No. 36 at p. 7)

DOE realizes that the cumulative effect of multiple regulations on an industry may significantly increase the burden faced by manufacturers that need to comply with regulations and certification programs from different organizations and levels of government. However, DOE notes that certain standards, such as ENERGY STAR, are optional for manufacturers.

AHRI stated that there are several legislative and regulatory activities that could significantly burden manufacturers of commercial refrigeration equipment, including the DOE CC&E program and the upcoming amended energy conservation standards for walk-in coolers and freezers. AHRI also added that climate change bills could have a significant negative impact on the availability and price of HFC refrigerants. (AHRI, No. 43 at p. 4)

DOE estimates the present value of the total benefits over the analysis period (2010–2040) of the EPACT 2005 standards for CRE to be $2.3 billion and the costs to be $0.32 billion, in 2012 dollars and using a discount rate of 7 percent. DOE estimates the present

[72] ENERGY STAR is a joint program of EPA and DOE that helps the Nation save money and protect the environment through energy efficient products and practices. More information can be found at: *www.energystar.gov*.

value of total benefits over the analysis period (2012–2042) of the DOE 2009 standards for CRE to be $3.97 billion and the costs to be $1.52 billion, in 2012 dollars and using a 7 percent discount rate. Additionally, in the energy conservation standard NOPR for walk-in coolers and freezers, DOE estimates the net present value of the total benefits over the analysis period (2017–2046) to be $21.6 billion and the costs to be $3.7 billion, in 2012% and using a discount rate of 7 percent.

DOE takes into account the cumulative cost of multiple Federal regulations on manufacturers, including CC&E, in the cumulative regulatory burden (CRB) section of its analysis. The CRB can be found in section V.B.2.e of this document. The CRB review also recognizes the additional burden faced by manufacturers that produce both commercial refrigeration equipment and walk-in coolers and freezers.

AHRI also stated that California is currently working on new regulations as part of Title 24 that will likely establish new prescriptive requirements on commercial refrigeration equipment beginning in 2013. AHRI added that other States on the West Coast are following California's lead and are likely to implement similar regulations in the near future. AHRI suggested that DOE account for these developments in its analysis. (AHRI, No. 43 at p. 4) Finally, AHRI commented that several States have enacted their own climate change legislation, including regulations established by the California Air Resources Board (CARB) to limit GHGs and reduce the usage of high GWP refrigerants such as HFCs. AHRI stated that CARB will implement these regulations in 2011. (AHRI, No. 43 at p. 4)

According to the California Code of Regulations, title 24, part 6, any appliance for which there is a California standard established may be installed only if the manufacturer has certified to the CEC, as specified in those regulations, that the appliance complies with the applicable standard for that appliance. California's appliance efficiency regulations require that the MDEC (in kilowatt-hours) for commercial refrigerators manufactured on or after January 1, 2010 does not exceed the following:

- Refrigerators with solid doors: 0.10V + 2.04
- Refrigerators with transparent doors: 0.12V + 3.34
- Freezers with solid doors: 0.40V + 1.38
- Freezers with transparent doors: 0.75V + 4.10
- Refrigerator/freezers with solid doors: the greater of 0.27AV–0.71 or 0.70
- Refrigerators with self-condensing unit designed for pull-down temperature applications: 0.126V + 3.51

Since these standards are identical to the ones prescribed in EPACT 2005 and the efficiency levels set by the current rulemaking will either exceed or be equivalent to the EPACT 2005 levels, DOE does not expect the Title 24 regulations to create a cumulative regulatory burden on manufacturers. California also has started a rulemaking proceeding to adopt changes to the building energy efficiency standards contained in the California Code of Regulations, title 24, part 6, but the CEC is currently in the pre-rulemaking stage and any new standards will not be published until 2013. DOE has not evaluated the impacts of the 2013 rule because any analysis would be speculative in the absence of final regulations.

CARB is currently limiting the in-State use of high-GWP refrigerants in non-residential refrigeration systems through its Refrigerant Management Program, effective January 1, 2011.[73] According to this new regulation, facilities with refrigeration systems that have a refrigerant capacity exceeding 50 pounds must repair leaks within 14 days of detection, maintain on-site records of all leak repairs, and keep receipts of all refrigerant purchases. The regulation applies to any person or company that installs, services, or disposes of appliances with high-GWP refrigerants. Refrigeration systems with a refrigerant capacity exceeding 50 pounds typically belong to food retail operations with remote condensing racks that store refrigerant serving multiple commercial refrigeration equipment units within a business. However, commercial refrigeration equipment units in food retail establishments are usually installed and serviced by refrigeration contractors, not manufacturers. As a result, although these CARB regulations apply to refrigeration technicians and owners of facilities with refrigeration systems, they are unlikely to represent a regulatory burden for commercial refrigeration manufacturers.

The cumulative regulatory burden on manufacturers of commercial refrigeration equipment is discussed in further detail in chapter 12 of the NOPR TSD.

[73] California Air Resources Board. *Refrigerant Management Program Final Regulation.* 2011. (Last accessed March 16, 2012.) *www.arb.ca.gov/cc/reftrack/reftrackrule.html.*

c. Small Manufacturers

During the April 2011 preliminary analysis public meeting, Southern Store Fixtures stated that the impact of research, development, and testing is greater on smaller manufacturers because, while they may have the same number of models in their product lines as do larger manufacturers, they produce fewer units of each model. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at p. 150) Similarly, Zero Zone stated that amended standards have large impacts on small companies. For example, Zero Zone uses foamed-in-place urethane panels. If it were to become necessary to use thicker foam, Zero Zone stated, the company could face capital conversion expenditures of roughly $250,000. (Zero Zone, Public Meeting Transcript, No. 31 at p. 199)

DOE agrees that amended standards may have disproportionate impacts on smaller manufacturers. As a result, the DOE conducts a small business analysis to assess those impacts, the results of which are set forth in section VI.B of this notice.

Stakeholders also commented on DOE's classification of small manufacturers. NEEA suggested that DOE review its characterizations of small and large manufacturers, as it believed there to be disparities between the listed company sizes and market shares in DOE's classifications. (NEEA, Public Meeting Transcript, No. 31 at p. 160) Emerson stated that manufacturers' sizes should be characterized by their operations in the market. According to Emerson, some manufacturers are part of larger companies, but the fact that they are owned by larger companies does not change the potential for impacts on their employment levels or risk of going out of business. (Emerson, Public Meeting Transcript, No. 31 at p. 207)

DOE requested feedback regarding the accuracy of its list of small businesses during its interviews with manufacturers. Since the publication of the preliminary analysis TSD, DOE has revised the list based on responses received from manufacturers. Furthermore, DOE understands that manufacturers that are owned by large parent companies may not be protected from the potential impacts of amended standards. However, in its analysis of small businesses, DOE also takes into account that manufacturers that belong to large parent companies are more likely to have better access to capital and engineering resources than manufacturers that have no parent company or have parent companies

with a total size of less than 750 employees.

A detailed discussion of the impact of the proposed standards on small manufacturers can be found in chapter 12 of the NOPR TSD.

d. Manufacturer Markup

Southern Store Fixtures expressed concern that research and development was considered part of the manufacturer markup. The company also asked whether sales, marketing, and engineering costs were included in this markup as well, and suggested that all of these expenses should be considered indirect costs instead. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 71–72)

DOE incorporates all non-production costs, including sales, marketing, and R&D, in its manufacturer markup. Although manufacturers' accounting practices may vary, DOE uses this standard model to approximate the cost structure of the commercial refrigeration industry as a whole. A detailed explanation of the manufacturer markup can be found in section V.B.2 of this notice and in chapter 5 of the NOPR TSD.

4. Manufacturer Interviews

DOE interviewed manufacturers representing over 90 percent of food retail sales and over 60 percent of foodservice sales. These interviews were in addition to those DOE conducted as part of the engineering analysis. The information gathered during these interviews enabled DOE to tailor the GRIM to reflect the unique financial characteristics of the commercial refrigeration industry. All interviews provided information that DOE used to evaluate the impacts of potential amended energy conservation standards on manufacturer cash flows, manufacturing capacities, and employment levels.

During the manufacturer interviews, DOE asked manufacturers to describe their major concerns about this rulemaking. The following sections describe the most significant issues identified by manufacturers. DOE has also included additional concerns in chapter 12 of the NOPR TSD.

a. Enforcement

Interviewed manufacturers expressed concern about the enforcement of an amended energy efficiency standard for commercial refrigeration equipment. Manufacturers believe that insufficient enforcement will lead to market distortions, as companies that make the necessary investments to meet amended standards and compliance requirements would be at a distinct pricing disadvantage to unscrupulous competitors that do not fully comply. The manufacturers requested that DOE take the enforcement action necessary to maintain a level playing field and to eliminate non-compliant products from the market.

b. Certification and Compliance Costs

Nearly all manufacturers expressed concern over CC&E costs. In particular, confusion over the definition of ''basic model'' and the implementation of AEDMs is making it difficult for some manufacturers to anticipate their total testing needs and total testing costs.

Manufacturers are concerned that CC&E requirements for commercial refrigeration equipment do not take into account the customized nature of the commercial refrigeration equipment industry. Manufacturers stated that their industry has a high level of end-user specification and low production volumes compared to other industries, such as residential refrigeration. As a result, the strictest interpretations of the CC&E requirements could lead to hundreds of thousands of tests per company. Additional clarification of how basic models and AEDMs apply to the commercial refrigeration equipment industry would help manufacturers understand the testing investments that will be necessary. DOE is aware of the current confusion and continues to work with industry to improve the CC&E process and AEDM rules to address these concerns.

c. Disproportionate Impact on Small Businesses

Manufacturers noted that small businesses will be disproportionately impacted by certification and compliance requirements compared to larger businesses. One manufacturer indicated that small and large manufacturers of the same equipment tend to have similar numbers of basic models, but large manufacturers offer a broader suite of products based on those basic models and have higher sales. Therefore, the manufacturer expressed concern that small manufacturers will be at a disadvantage because they will need to spread both industry certification and conversion costs over a smaller number of shipments.

Also, small manufacturers indicated they have fewer resources with which to manage CC&E requirements. As a result, they will be forced to focus on compliance rather than on innovation. Small manufacturers believe that their large competitors will have greater resources to continue innovating while meeting amended energy conservation standards.

d. Potential Loss of Product Utility and Decrease in Food Safety

Manufacturers expressed concern about the potential impact of amended energy conservation standards on product performance. Specifically, manufacturers serving the foodservice industry were concerned about negative impacts on food safety, while manufacturers serving the food retail industry were concerned about negative impacts on merchandising design.

One manufacturer of commercial refrigeration equipment for the foodservice industry summarized the challenge of amended energy conservation standards as ''the design trade-off between product price, energy efficiency, and food safety.'' In the foodservice industry, refrigeration equipment must maintain safe food temperatures despite frequent door openings in challenging environments, such as kitchens with high temperatures and high humidity. The infiltration of warm, moist air places an additional burden on the refrigeration equipment and increases energy usage. Manufacturers expressed concern that more-efficient equipment would have trouble maintaining food safety in extreme, but not uncommon, conditions.

Manufacturers in the food retail market design their equipment to optimally present merchandise. Some manufacturers were concerned that amended energy conservation standards would limit their ability to tailor their commercial refrigeration equipment for specific merchandise. Specifically, manufacturers noted that the highly directional light from LED bulbs provides poor light for display case applications where the product is presented in multiple layers, such as prepared food display cases. Additionally, manufacturers noted that higher efficiency designs generally have less airflow (due to reduced fan power consumption). They stated that this reduction in airflow could result in less desirable presentation of meats and in increased icing on products. In general, more-efficient standards limit manufacturer options for optimizing the presentation features of products. Food retail customers such as supermarkets make purchasing decisions based on the various presentation features of commercial refrigeration equipment offered by different manufacturers.

L. Employment Impact Analysis

Employment impacts are one of the factors that DOE considers in selecting

an efficiency standard. Employment impacts include direct and indirect impacts. Direct employment impacts are any changes that affect employment of commercial refrigeration equipment manufacturers, their suppliers, and related service firms. Indirect impacts are those changes in employment in the larger economy that occur because of the shift in expenditures and capital investment caused by the purchase and operation of more-efficient commercial refrigeration equipment. Direct employment impacts are analyzed as part of the MIA. Indirect impacts are assessed as part of the employment impact analysis.

Indirect employment impacts from amended commercial refrigeration equipment standards consist of the net jobs created or eliminated in the national economy, other than in the manufacturing sector being regulated, as a consequence of (1) reduced spending by end users on electricity; (2) reduced spending on new energy supply by the utility industry; (3) increased spending on the purchase price of new commercial refrigeration equipment; and (4) the effects of those three factors throughout the Nation's economy. DOE expects the net monetary savings from amended standards to stimulate other forms of economic activity. DOE also expects these shifts in spending and economic activity to affect the demand for labor.

In developing this analysis in the NOPR, DOE estimated indirect national employment impacts using an input/output model of the U.S. economy, called ImSET (Impact of Sector Energy Technologies), developed by DOE's Building Technologies Program. ImSET is an economic analysis model that characterizes the interconnections among 188 sectors of the economy as national input/output structural matrices, using data from the U.S. Department of Commerce's 1997 Benchmark U.S. input/output table.[74] The ImSET model estimates changes in employment, industry output, and wage income in the overall U.S. economy resulting from changes in expenditures in various sectors of the economy. DOE estimated changes in expenditures using the NIA model. ImSET then estimated the net national indirect employment impacts that amended commercial refrigeration equipment efficiency standards could have on employment by sector.

For more details on the employment impact analysis and its results, see chapter 16 of the NOPR TSD and section 0 of this notice.

M. Utility Impact Analysis

The utility impact analysis estimates several important effects on the utility industry of the adoption of new or amended standards. For this analysis, DOE used the NEMS–BT model to generate forecasts of electricity consumption, electricity generation by plant type, and electric generating capacity by plant type, that would result from each considered TSL. DOE obtained the energy savings inputs associated with efficiency improvements to considered products from the NIA. DOE conducts the utility impact analysis as a scenario that departs from the latest *AEO* Reference Case. In the analysis for today's rule, the estimated impacts of standards are the differences between values forecasted by NEMS–BT and the values in the *AEO2013* Reference Case. For more details on the utility impact analysis, see chapter 15 of the NOPR TSD.

N. Emissions Analysis

In the emissions analysis, DOE estimated the reduction in power sector emissions of CO_2, NO_X, sulfur dioxide (SO_2) and Hg from amended energy conservation standards for commercial refrigeration equipment. In addition, DOE estimates emissions impacts in production activities (extracting, processing, and transporting fuels) that provide the energy inputs to power plants. These are referred to as ''upstream'' emissions. Together, these emissions account for the full-fuel-cycle (FFC). In accordance with DOE's FFC Statement of Policy (76 FR 51282 (Aug. 18, 2011)) 77 FR 49701 (August 17, 2012), the FFC analysis includes impacts on emissions of methane (CH_4) and nitrous oxide (N_2O), both of which are recognized as greenhouse gases.

DOE conducted the emissions analysis using emissions factors that were derived from data in EIA's *Annual Energy Outlook 2013* (*AEO 2013*), supplemented by data from other sources. DOE developed separate emissions factors for power sector emissions and upstream emissions. The method that DOE used to derive emissions factors is described in chapter 13 of the NOPR TSD.

EIA prepares the *Annual Energy Outlook* using the National Energy Modeling System (NEMS). Each annual version of NEMS incorporates the projected impacts of existing air quality regulations on emissions. *AEO 2013* generally represents current legislation and environmental regulations, including recent government actions, for which implementing regulations were available as of December 31, 2012.

SO_2 emissions from affected electric generating units (EGUs) are subject to nationwide and regional emissions cap-and-trade programs. Title IV of the Clean Air Act sets an annual emissions cap on SO_2 for affected EGUs in the 48 contiguous States (42 U.S.C. 7651 *et seq.*) and the District of Columbia (DC). SO_2 emissions from 28 eastern States and DC were also limited under the Clean Air Interstate Rule (CAIR; 70 FR 25162 (May 12, 2005)), which created an allowance-based trading program. CAIR was remanded to the U.S. Environmental Protection Agency (EPA) by the U.S. Court of Appeals for the District of Columbia but it remained in effect. See *North Carolina* v. *EPA,* 550 F.3d 1176 (D.C. Cir. 2008); *North Carolina* v. *EPA,* 531 F.3d 896 (D.C. Cir. 2008). On July 6, 2011, EPA issued a replacement for CAIR, the Cross-State Air Pollution Rule (CSAPR). 76 FR 48208 (Aug. 8, 2011). On August 21, 2012, the DC Circuit issued a decision to vacate CSAPR. See *EME Homer City Generation, LP* v. *EPA,* 696 F.3d 7, 38 (D.C. Cir. 2012). The court ordered EPA to continue administering CAIR. The *AEO 2013* emissions factors used for today's NOPR assume that CAIR remains a binding regulation through 2040.[75]

The attainment of emissions caps is typically flexible among EGUs and is enforced through the use of emissions allowances and tradable permits. Under existing EPA regulations, any excess SO_2 emissions allowances resulting from the lower electricity demand caused by the adoption of a new or amended efficiency standard could be used to permit offsetting increases in SO_2 emissions by any regulated EGU. In past rulemakings, DOE recognized that there was uncertainty about the effects of efficiency standards on SO_2 emissions covered by the existing cap-and-trade system, but it concluded that negligible reductions in power sector SO_2 emissions would occur as a result of standards.

[74] U.S. Department of Commerce, Bureau of Economic Analysis. *Benchmark Input-Output Accounts.* 1997. U.S. Government Printing Office: Washington, DC.

[75] On December 30, 2011, the DC Circuit stayed the new rules while a panel of judges reviews them, and told EPA to continue administering CAIR. See EME *Homer City Generation, LP* v. *EPA,* Order, No. 11–1302, Slip Op. at *2 (D.C. Cir. Dec. 30, 2011). On August 21, 2012, the DC Circuit issued a decision to vacate CSAPR. See *EME Homer City Generation, LP* v. *EPA,* No. 11–1302, 2012 WL 3570721 at *24 (D.C. Cir. Aug. 21, 2012). The court again ordered EPA to continue administering CAIR. *AEO2012* had been finalized prior to both these decisions, however. DOE understands that CAIR and CSAPR are similar with respect to their effect on emissions impacts of energy efficiency standards.

Beginning in 2015, however, SO_2 emissions will fall as a result of the Mercury and Air Toxics Standards (MATS) for power plants, which were announced by EPA on December 21, 2011. 77 FR 9304 (Feb. 16, 2012). In the final MATS rule, EPA established a standard for hydrogen chloride as a surrogate for acid gas hazardous air pollutants (HAP), and also established a standard for SO_2 (a non-HAP acid gas) as an alternative equivalent surrogate standard for acid gas HAP. The same controls are used to reduce HAP and non-HAP acid gas; thus, SO_2 emissions will be reduced as a result of the control technologies installed on coal-fired power plants to comply with the MATS requirements for acid gas. *AEO2013* assumes that, in order to continue operating, coal plants must have either flue gas desulfurization or dry sorbent injection systems installed by 2015. Both technologies, which are used to reduce acid gas emissions, also reduce SO_2 emissions. Under the MATS, NEMS shows a reduction in SO_2 emissions when electricity demand decreases (*e.g.,* as a result of energy efficiency standards). Emissions will be far below the cap that would be established by CAIR, so it is unlikely that excess SO_2 emissions allowances resulting from the lower electricity demand would be needed or used to permit offsetting increases in SO_2 emissions by any regulated EGU. Therefore, DOE believes that efficiency standards will reduce SO_2 emissions in 2015 and beyond.

CAIR established a cap on NO_X emissions in 28 eastern States and the District of Columbia. Energy conservation standards are expected to have little effect on NO_X emissions in those States covered by CAIR because excess NO_X emissions allowances resulting from the lower electricity demand could be used to permit offsetting increases in NO_X emissions. However, standards would be expected to reduce NO_X emissions in the States not affected by the caps, so DOE estimated NO_X emissions reductions from the standards considered in today's NOPR for these States.

The MATS limit mercury emissions from power plants, but they do not include emissions caps and, as such, DOE's energy conservation standards would likely reduce Hg emissions. DOE estimated mercury emissions factors based on *AEO2013,* which incorporates the MATS.

After the preliminary analysis, two stakeholders provided comments pertinent to the emissions analysis. NRDC stated that, given that supermarket rack-based commercial refrigeration equipment units have leakage rates of 15 to 30 percent and use HFC refrigerants with GWPs in the range of 2,000 to 3,400, direct emissions can be as large as the indirect emissions due to energy use. NRDC added that DOE or EPA should review emissions due to leakage. (NRDC, Public Meeting Transcript, No. 31 at p. 173) CA IOUs stated that refrigerant emissions and leakage may have a significant GWP, and suggested that DOE include in its environmental impact analysis estimates of changes in refrigerant emissions, and their effects on total GHG emissions and GWP. CA IOUs pointed to the CEC analysis as a potential starting point for DOE to use in including refrigerants in the environmental impact analysis. (CA IOUs, No. 42 at p. 6)

DOE appreciates the comments by stakeholders regarding the emissions analysis of refrigerants. DOE's emission analysis adheres to the guidance and methodologies that has been outlined in this section.

DOE also adds that the design options used for efficiency improvement of commercial refrigeration equipment in this rulemaking are not expected to impact refrigerant leakage rates. Consequently, the proposed standards would not affect refrigerant emissions. If stakeholders believe that the proposed standards would lead to an increase or a decrease in refrigerant emissions, then supporting arguments may be submitted for DOE's consideration during the NOPR public meeting or comment period.

O. Monetizing Carbon Dioxide and Other Emissions Impacts

As part of the development of the proposed standards in this NOPR, DOE considered the estimated monetary benefits from the reduced emissions of CO_2 and NO_X that are expected to result from each of the TSLs considered. In order to make this calculation analogous to the calculation of the NPV of customer benefit, DOE considered the reduced emissions expected to result over the lifetime of equipment shipped in the forecast period for each TSL. This section summarizes the basis for the monetary values used for each of these emissions and presents the values considered in this NOPR.

For today's NOPR, DOE is relying on a set of values for the SCC that was developed by a Federal interagency process. The basis for these values is summarized below, and a more detailed description of the methodologies used is provided as an appendix to chapter 14 of the NOPR TSD.

1. Social Cost of Carbon

The SCC is an estimate of the monetized damages associated with an incremental increase in carbon emissions in a given year. It is intended to include (but is not limited to) changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services. Estimates of the SCC are provided in dollars per metric ton of carbon dioxide. A domestic SCC value is meant to reflect the value of damages in the United States resulting from a unit change in carbon dioxide emissions, while a global SCC value is meant to reflect the value of damages worldwide.

Under section 1(b) of Executive Order 12866, agencies must, to the extent permitted by law, ''assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.'' The purpose of the SCC estimates presented here is to allow agencies to incorporate the monetized social benefits of reducing CO_2 emissions into cost-benefit analyses of regulatory actions that have small, or ''marginal,'' impacts on cumulative global emissions. The estimates are presented with an acknowledgement of the many uncertainties involved and with a clear understanding that they should be updated over time to reflect increasing knowledge of the science and economics of climate impacts.

As part of the interagency process that developed these SCC estimates, technical experts from numerous agencies met on a regular basis to consider public comments, explore the technical literature in relevant fields, and discuss key model inputs and assumptions. The main objective of this process was to develop a range of SCC values using a defensible set of input assumptions grounded in the existing scientific and economic literatures. In this way, key uncertainties and model differences transparently and consistently inform the range of SCC estimates used in the rulemaking process.

a. Monetizing Carbon Dioxide Emissions

When attempting to assess the incremental economic impacts of carbon dioxide emissions, the analyst faces a number of serious challenges. A report from the National Research Council [76]

[76] National Research Council. *Hidden Costs of Energy: Unpriced Consequences of Energy*

points out that any assessment will suffer from uncertainty, speculation, and lack of information about (1) future emissions of GHGs; (2) the effects of past and future emissions on the climate system, (3) the impact of changes in climate on the physical and biological environment, and (4) the translation of these environmental impacts into economic damages. As a result, any effort to quantify and monetize the harms associated with climate change will raise serious questions of science, economics, and ethics and should be viewed as provisional.

Despite the serious limits of both quantification and monetization, SCC estimates can be useful in estimating the social benefits of reducing CO_2 emissions. Most Federal regulatory actions can be expected to have marginal impacts on global emissions. For such policies, the agency can estimate the benefits from reduced (or costs from increased) emissions in any future year by multiplying the change in emissions in that year by the SCC value appropriate for that year. The net present value of the benefits can then be calculated by multiplying each of these future benefits by an appropriate discount factor and summing across all affected years. This approach assumes that the marginal damages from increased emissions are constant for small departures from the baseline emissions path, an approximation that is reasonable for policies that have effects on emissions that are small relative to cumulative global CO_2 emissions. For policies that have a large (non-marginal) impact on global cumulative emissions, there is a separate question of whether the SCC is an appropriate tool for calculating the benefits of reduced emissions. This concern is not applicable to this notice, however.

It is important to emphasize that the interagency process is committed to updating these estimates as the science and economic understanding of climate change and its impacts on society improves over time. In the meantime, the interagency group will continue to explore the issues raised by this analysis and consider public comments as part of the ongoing interagency process.

b. Social Cost of Carbon Values Used in Past Regulatory Analyses

Economic analyses for Federal regulations have used a wide range of values to estimate the benefits associated with reducing CO_2 emissions. The model year 2011 Corporate Average Fuel Economy final rule, the U.S. Department of Transportation (DOT) used both a ''domestic'' SCC value of $2 per metric ton of CO_2 and a ''global'' SCC value of $33 per metric ton of CO_2 for 2007 emission reductions (in 2007$), increasing both values at 2.4 percent per year. DOT also included a sensitivity analysis at $80 per metric ton of CO_2.[77] A 2008 regulation proposed by DOT assumed a domestic SCC value of $7 per metric ton of CO_2 (in 2006$) for 2011 emission reductions (with a range of $0–$14 for sensitivity analysis), also increasing at 2.4 percent per year.[78] [79] A regulation for packaged terminal air conditioners and packaged terminal heat pumps finalized by DOE in 2008 used a domestic SCC range of $0 to $20 per metric ton CO_2 for 2007 emission reductions (in 2007$). 73 FR 58772, 58814 (Oct. 7, 2008) In addition, EPA's 2008 Advance Notice of Proposed Rulemaking on Regulating Greenhouse Gas Emissions Under the Clean Air Act identified what it described as ''very preliminary'' SCC estimates subject to revision. 73 FR 44354 (July 30, 2008). EPA's global mean values were $68 and $40 per metric ton CO_2 for discount rates of approximately 2 percent and 3 percent, respectively (in 2006$ for 2007 emissions).

In 2009, an interagency process was initiated to offer a preliminary assessment of how best to quantify the benefits from reducing carbon dioxide emissions. To ensure consistency in how benefits are evaluated across Federal agencies, the Administration sought to develop a transparent and defensible method, specifically designed for the rulemaking process, to quantify avoided climate change damages from reduced CO_2 emissions. The interagency group did not undertake any original analysis. Instead, it combined SCC estimates from the existing literature to use as interim values until a more comprehensive analysis could be conducted. The outcome of the preliminary assessment by the interagency group was a set of five interim values: global SCC estimates for 2007 (in 2006$) of $55, $33, $19, $10, and $5 per metric ton of CO_2. These interim values represented the first sustained interagency effort within the U.S. government to develop an SCC for use in regulatory analysis. The results of this preliminary effort were presented in several proposed and final rules.

c. Current Approach and Key Assumptions

Since the release of the interim values, the interagency group reconvened on a regular basis to generate improved SCC estimates. Specially, the group considered public comments and further explored the technical literature in relevant fields. The interagency group relied on three integrated assessment models commonly used to estimate the SCC: the FUND, DICE, and PAGE models. These models are frequently cited in the peer-reviewed literature and were used in the last assessment of the Intergovernmental Panel on Climate Change. Each model was given equal weight in the SCC values that were developed.

Each model takes a slightly different approach to model how changes in emissions result in changes in economic damages. A key objective of the interagency process was to enable a consistent exploration of the three models, while respecting the different approaches to quantifying damages taken by the key modelers in the field. An extensive review of the literature was conducted to select three sets of input parameters for these models: climate sensitivity, socio-economic and emissions trajectories, and discount rates. A probability distribution for climate sensitivity was specified as an input into all three models. In addition, the interagency group used a range of scenarios for the socio-economic parameters and a range of values for the discount rate. All other model features were left unchanged, relying on the model developers' best estimates and judgments.

The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets of values are based on the average SCC from the three IAMs, at discount rates of 2.5, 3, and 5 percent. The fourth set, which represents the 95th percentile SCC estimate across all three models at a 3-percent discount rate, was included to represent higher than expected impacts from temperature change further out in the tails of the

Production and Use. 2009. National Academies Press: Washington, DC.

[77] See *Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011,* 74 FR 14196 (March 30, 2009) (Final Rule); Final Environmental Impact Statement Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015 at 3–90 (Oct. 2008) (Available at: *www.nhtsa.gov/fuel-economy*).

[78] See *Average/fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015*, 73 FR 24352 (May 2, 1008) (Proposed Rule); Draft Environmental Impact Statement Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015 at 3-58 (June 2008) (Available at *www.nhtsa.gov/fuel-economy*).

[79] See *Average/fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015*, 73 FR 24352 (May 2, 1008) (Proposed Rule); Draft Environmental Impact Statement Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011–2015 at 3-58 (June 2008) (Available at *www.nhtsa.gov/fuel-economy*).

SCC distribution. The values grow in real terms over time. Additionally, the interagency group determined that a range of values from 7 percent to 23 percent should be used to adjust the global SCC to calculate domestic effects,[80] although preference is given to consideration of the global benefits of reducing CO_2 emissions. Table IV.10 presents the values in the 2010 interagency group report,[81] which is reproduced in appendix 14A of the NOPR TSD.

TABLE IV.10—ANNUAL SCC VALUES FROM 2010 INTERAGENCY REPORT, 2010–2050

[In 2007 dollars per metric ton]

Year	Discount rate			
	5%	3%	2.5%	3%
	Average	Average	Average	95th percentile
2010	4.7	21.4	35.1	64.9
2015	5.7	23.8	38.4	72.8
2020	6.8	26.3	41.7	80.7
2025	8.2	29.6	45.9	90.4
2030	9.7	32.8	50.0	100.0
2035	11.2	36.0	54.2	109.7
2040	12.7	39.2	58.4	119.3
2045	14.2	42.1	61.7	127.8
2050	15.7	44.9	65.0	136.2

The SCC values used for today's notice were generated using the most recent versions of the three integrated assessment models that have been published in the peer-reviewed literature.[82] Table IV.11 shows the updated sets of SCC estimates in 5-year increments from 2010 to 2050. The full set of annual SCC estimates between 2010 and 2050 is reported in appendix 14A of the TSD. The central value that emerges is the average SCC across models at the 3 percent discount rate. However, for purposes of capturing the uncertainties involved in regulatory impact analysis, the interagency group emphasizes the importance of including all four sets of SCC values.

TABLE IV.11—ANNUAL SCC VALUES FROM 2013 INTERAGENCY REPORT, 2010–2050

[in 2007 dollars per metric ton]

Year	Discount rate			
	5%	3%	2.5%	3%
	Average	Average	Average	95th Percentile
2010	11	33	52	90
2015	12	38	58	109
2020	12	43	65	129
2025	14	48	70	144
2030	16	52	76	159
2035	19	57	81	176
2040	21	62	87	192
2045	24	66	92	206
2050	27	71	98	221

It is important to recognize that a number of key uncertainties remain, and that current SCC estimates should be treated as provisional and revisable since they will evolve with improved scientific and economic understanding. The interagency group also recognizes that the existing models are imperfect and incomplete. The 2009 National Research Council report mentioned above points out that there is tension between the goal of producing quantified estimates of the economic damages from an incremental ton of carbon and the limits of existing efforts to model these effects. There are a number of concerns and problems that should be addressed by the research community, including research programs housed in many of the Federal agencies participating in the interagency process to estimate the SCC. The interagency group intends to periodically review and reconsider those estimates to reflect increasing knowledge of the science and economics of climate impacts, as well as improvements in modeling.

The interagency group intends to periodically review and reconsider those estimates to reflect increasing knowledge of the science and economics of climate impacts, as well as improvements in modeling.

[80] It is recognized that this calculation for domestic values is approximate, provisional, and highly speculative. There is no *a priori* reason why domestic benefits should be a constant fraction of net global damages over time.

[81] *Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866.* Interagency Working Group on Social Cost of Carbon, United States Government, February 2010. *www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf.*

[82] *Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866.* Interagency Working Group on Social Cost of Carbon, United States Government. May 2013. *http://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf*

In summary, in considering the potential global benefits resulting from reduced CO_2 emissions, DOE used the values from the 2013 interagency report adjusted to 2012$ using the GDP price deflator. For each of the four sets of SCC values, the values for emissions in 2015 were $12.9, $40.8, $62.2, and $117 per metric ton avoided [83] (values expressed in 2012$). DOE derived values after 2050 using the relevant growth rates for the 2040–2050 period in the interagency update.

DOE multiplied the CO_2 emissions reduction estimated for each year by the SCC value for that year in each of the four cases. To calculate a present value of the stream of monetary values, DOE discounted the values in each of the four cases using the specific discount rate that had been used to obtain the SCC values in each case.

2. Valuation of Other Emissions Reductions

DOE investigated the potential monetary benefit of reduced NO_X emissions from the potential standards it considered. As noted above, DOE has taken into account how new or amended energy conservation standards would reduce NO_X emissions in those 22 States not affected by emissions caps. DOE estimated the monetized value of NO_X emissions reductions resulting from each of the TSLs considered for today's NOPR based on estimates found in the relevant scientific literature. Available estimates suggest a very wide range of monetary values per ton of NO_X from stationary sources, ranging from $468 to $4,809 per ton in 2012$).[84] In accordance with OMB guidance, [85] DOE calculated a range of monetary benefits using each of the economic values for NO_X and real discount rates of 3 percent and 7 percent.

DOE is evaluating appropriate monetization of avoided SO_2 and Hg emissions in energy conservation standards rulemakings. It has not included monetization in the current analysis

P. Regulatory Impact Analysis

DOE prepared a regulatory impact analysis (RIA) for this rulemaking, which is described in chapter 16 of the NOPR TSD. The RIA is subject to review by OIRA in the OMB. The RIA consists of (1) a statement of the problem addressed by this regulation and the mandate for Government action; (2) a description and analysis of policy alternatives to this regulation; (3) a qualitative review of the potential impacts of the alternatives; and (4) the national economic impacts of the proposed standard.

The RIA assesses the effects of feasible policy alternatives to amended commercial refrigeration equipment standards and provides a comparison of the impacts of the alternatives. DOE evaluated the alternatives in terms of their ability to achieve significant energy savings at reasonable cost, and compared them to the effectiveness of the proposed rule.

DOE identified the following major policy alternatives for achieving increased commercial refrigeration equipment efficiency:

- No new regulatory action
- commercial customer tax credits
- commercial customer rebates
- voluntary energy efficiency targets
- bulk government purchases
- early replacement

DOE qualitatively evaluated each alternative's ability to achieve significant energy savings at reasonable cost and compared it to the effectiveness of the proposed rule. DOE assumed that each alternative policy would induce commercial customers to voluntarily purchase at least some higher efficiency equipment at any of the TSLs. In contrast to a standard at one of the TSLs, the adoption rate of the alternative non-regulatory policy cases may not be 100 percent, which would result in lower energy savings than a standard. The following paragraphs discuss each policy alternative. (See chapter 17 of the NOPR TSD for further details.)

No new regulatory action: The case in which no regulatory action is taken for commercial refrigeration equipment constitutes the base case (or no action) scenario. By definition, no new regulatory action yields zero energy savings and an NPV of zero dollars.

Commercial customer tax credits: Customer tax credits are considered a viable non-regulatory market transformation program. From a customer perspective, the most important difference between rebate and tax credit programs is that a rebate can be obtained quickly, whereas receipt of tax credits is delayed until income taxes are filed or a tax refund is provided by the Internal Revenue Service (IRS). From a societal perspective, tax credits (like rebates) do not change the installed cost of the equipment, but rather transfer a portion of the cost from the customer to taxpayers as a whole. DOE, therefore, assumed that equipment costs in the customer tax credits scenario were identical to the NIA base case. The change in the NES and NPV is a result of the change in the efficiency distributions that results from lowering the prices of higher efficiency equipment.

Commercial customer rebates: Customer rebates cover a portion of the difference in incremental product price between products meeting baseline efficacy levels and those meeting higher efficacy levels, resulting in a higher percentage of customers purchasing more-efficacious models and decreased aggregated energy use compared to the base case. Although the rebate program reduces the total installed cost to the customer, it is financed by tax revenues. Therefore, from a societal perspective, the installed cost at any efficiency level does *not* change with the rebate program; rather, part of the cost is transferred from the customer to taxpayers as a whole. Consequently, DOE assumed that equipment costs in the rebates scenario were identical to the NIA base case. The change in the NES and NPV is a result of the change in the efficiency distributions that results as a consequence of lowering the prices of higher efficiency equipment.

Voluntary energy efficiency targets: While it is possible that voluntary programs for equipment would be effective, DOE lacks a quantitative basis to determine how effective such a program might be. As noted previously, broader economic and social considerations are in play than simple economic return to the equipment purchaser. DOE lacks the data necessary to quantitatively project the degree to which voluntary programs for more expensive, higher efficiency equipment would modify the market.

Bulk government purchases and early replacement incentive programs: DOE also considered, but did not analyze, the potential of bulk government purchases and early replacement incentive programs as alternatives to the proposed standards. Bulk government purchases would have a very limited impact on improving the overall market efficiency of commercial refrigeration equipment because they would be a negligible part of the total equipment sold in the market. In the case of replacement incentives, several policy options exist to promote early replacement, including a direct national program of customer incentives, incentives paid to utilities to promote an early replacement program,

[83] The interagency report presents SCC values through 2050. DOE derived values after 2050 using the 3-percent per year escalation rate used by the interagency group.

[84] For additional information, refer to U.S. Office of Management and Budget, Office of Information and Regulatory Affairs, *2006 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities,* Washington, DC.

[85] OMB, Circular A–4: Regulatory Analysis (Sept. 17, 2003).

market promotions through equipment manufacturers, and replacement of government-owned equipment. In considering early replacements, DOE estimates that the energy savings realized through a one-time early replacement of existing stock equipment does not result in energy savings commensurate to the cost to administer the program. Consequently, DOE did not analyze this option in detail.

V. Analytical Results

A. Trial Standard Levels

1. Trial Standard Level Formulation Process and Criteria

DOE selected between five and eight efficiency levels for all but three equipment classes for the LCC analysis and NIA; the three exceptions were the HZO.RC.M, HZO.RC.L, and HZO.SC.L equipment classes, which had only two efficiency levels each, including the baseline efficiency levels.[86] For all equipment classes, the first efficiency level is the baseline efficiency level. Based on the results of the LCC analysis and NIA, DOE selected five TSLs above the baseline level for each equipment class for the NOPR stage of this rulemaking. TSL 5 was selected at the max-tech level for all equipment classes. TSL 4 was chosen so as to group the efficiency levels with the highest energy savings combined with a positive customer NPV at a 7-percent discount rate. ''Customer NPV'' is the NPV of future savings obtained from the NIA. It provides a measure of the benefits only to the customers of the commercial refrigeration equipment, and does not account for the net benefits to the Nation. The net benefits to the Nation also include monetized values of emissions reductions in addition to the customer NPV. TSL 3 was chosen to represent the group of efficiency levels with the highest customer NPV at a 7-percent discount rate. While the selection of TSL 4 and TSL 3 were based on customer NPV, the proposed standard levels were selected on the basis of net social benefits. TSL 2 and TSL 1 were selected to provide intermediate efficiency levels that fill the gap between the baseline efficiency level and TSL 3. For the HZO.RC.M, HZO.RC.L, and HZO.SC.L equipment classes, there is only one efficiency level above baseline. While TSL 5 was associated with the max-tech level for these three equipment classes, TSLs 1 through 4 did not have corresponding efficiency levels that satisfied TSL formulation criteria. Therefore, the baseline efficiency level was assigned to TSL 1 through TSL 4 for each of these three equipment classes. Table V.1 shows the mapping between TSLs and efficiency levels.

TABLE V.1—MAPPING BETWEEN TSLS AND EFFICIENCY LEVELS

Equipment class	Baseline	Intermediate level *	Intermediate level **	Max NPV ***	Max eff. lvl with pos-NPV †	Max-tech
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6.
VOP.RC.L	Level 1	Level 2	Level 3	Level 4	Level 4	Level 5.
VOP.SC.M	Level 1	Level 3	Level 4	Level 5	Level 6	Level 7.
VCT.RC.M	Level 1	Level 2	Level 3	Level 4	Level 6	Level 7.
VCT.RC.L	Level 1	Level 3	Level 4	Level 5	Level 5	Level 6.
VCT.SC.M	Level 1	Level 2	Level 3	Level 4	Level 7	Level 8.
VCT.SC.L	Level 1	Level 3	Level 4	Level 5	Level 7	Level 8.
VCT.SC.I	Level 1	Level 3	Level 5	Level 6	Level 6	Level 7.
VCS.SC.M	Level 1	Level 3	Level 5	Level 7	Level 7	Level 8.
VCS.SC.L	Level 1	Level 3	Level 5	Level 6	Level 7	Level 8.
VCS.SC.I	Level 1	Level 3	Level 5	Level 6	Level 6	Level 7.
SVO.RC.M	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6.
SVO.SC.M	Level 1	Level 3	Level 4	Level 5	Level 6	Level 7.
SOC.RC.M	Level 1	Level 2	Level 3	Level 4	Level 6	Level 7.
HZO.RC.M †	Level 1	Level 1	Level 1	Level 1	Level 1	Level 2.
HZO.RC.L †	Level 1	Level 1	Level 1	Level 1	Level 1	Level 2.
HZO.SC.M	Level 1	Level 2	Level 2	Level 3	Level 4	Level 5.
HZO.SC.L †	Level 1	Level 1	Level 1	Level 1	Level 1	Level 2.
HCT.SC.M	Level 1	Level 3	Level 5	Level 6	Level 7	Level 8.
HCT.SC.L	Level 1	Level 3	Level 4	Level 5	Level 7	Level 8.
HCT.SC.I	Level 1	Level 2	Level 3	Level 4	Level 4	Level 5.
HCS.SC.M	Level 1	Level 2	Level 3	Level 4	Level 5	Level 7.
HCS.SC.L	Level 1	Level 4	Level 5	Level 6	Level 6	Level 7.
PD.SC.M	Level 1	Level 2	Level 2	Level 3	Level 7	Level 8.
SOC.SC.M	Level 1	Level 3	Level 4	Level 5	Level 7	Level 8.

''Level'' stands for ''Efficiency Level.''

* TSL 1 was generally chosen as one level below TSL 2, but in some cases an even lower efficiency level was chosen if the Level immediately below TSL 2 had an NPV value that was close to the NPV value of TSL 2.

** TSL 2 was generally chosen as one level below TSL 3, but in some cases an even lower efficiency level was chosen if the Level immediately below TSL 3 had an NPV value that was close to the NPV value of TSL 3.

*** Efficiency level that has the highest NPV at a 7-percent discount rate.

† Highest efficiency level with a positive NPV at a 7-percent discount rate.

‡ TSLs 1 through 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L do not satisfy the criteria for the corresponding TSL selection. See explanation in section V.A.1. TSLs 1 through 4 were assigned to the baseline efficiency level for all three equipment classes.

[86] As explained in section IV.H.1, the baseline efficiency levels for equipment classes HZO.RC.M, HZO. RC.L and HZO.SC.L were set by their respective standards baseline values. The latest amended standards for these equipment classes were specified by the January 2009 final rule. DOE could identify only one design option (vacuum insulated panels) that could increase the efficiency of these equipment classes above the standards baseline. Therefore, apart from the baseline efficiency levels (standard baseline levels), there was only one additional efficiency level for each of these three equipment classes.

2. Trial Standard Level Equations

Because of the equipment size variation within each equipment class and the use of daily energy consumption as the efficiency metric, DOE developed a methodology to express efficiency standards in terms of a normalizing metric. DOE used two normalizing metrics that were used for all equipment classes: (1) Volume (V) and (2) TDA. The use of these two normalization metrics allows for the development of the standard in the form of a linear equation that can be used to represent the entire range of equipment sizes within a given equipment class. DOE retained the respective normalization metric (TDA or volume) previously used in the EPACT 2005 or the January 2009 final rule standards for each covered equipment class. (42 U.S.C. 6313(c)(2)–(3)); 74 FR 1093 (Jan. 9, 2009). Additionally, in its January 2009 final rule, DOE developed offset factors as a method to adjust the energy efficiency requirements for smaller equipment in each equipment class analyzed. These offset factors, which form the y-intercept on a plot of each standard level equation (representing a fictitious case of zero volume or zero TDA), accounted for certain components of the refrigeration load (such as conduction end effects) that remain constant even when equipment sizes vary. These constant loads affect smaller cases disproportionately. The offset factors were intended to approximate these constant loads and provide a fixed end point in an equation that describes the relationship between energy consumption and the corresponding normalization metric. 74 FR 1,118–19 (Jan. 9, 2009). The standard level equations prescribed by EPACT 2005 also contained similar fixed parts not multiplied by the volume metric and which correspond to these offset factors. (42 U.S.C. 6313(c)(2)) In this NOPR, DOE modified the January 2009 final rule (74 FR 1,118–19 (Jan. 9, 2009)) and EPACT 2005 offset factors at each TSL to reflect the proportional changes in energy consumption for each equipment class, as modeled in the engineering analysis. See chapter 5 of the NOPR TSD for further details and discussion of offset factors.

For the equipment classes covered under this rulemaking, the standards equation at each TSL is proposed in the form of MDEC (in kilowatt-hours per day), normalized by a volume (V) or TDA metric, with an offset factor added to that value. These equations take the form:

$MDEC = A \times TDA + B$ *(for equipment using TDA as a normalizing metric)*

or

$MDEC = A \times V + B$ *(for equipment using volume as a normalizing metric)*

For equipment classes directly analyzed in the engineering analysis, offset factor *B* was calculated for each class (see chapter 5 of the NOPR TSD for discussion of offset factors). The slope, *A,* was derived based on the offset factor, *B,* and the CDEC of the representative unit modeled in the engineering analysis for that equipment class is presented in Table V.2. The standards equations may be used to prescribe the MDEC for equipment of different sizes within the same equipment class. Chapter 9 of the NOPR TSD explains the methodology used for selecting TSLs and developing the coefficients shown in Table V.3.

TABLE V.2—CDEC VALUES BY TSL FOR REPRESENTATIVE UNITS ANALYZED IN THE ENGINEERING ANALYSIS FOR EACH PRIMARY EQUIPMENT CLASS

Equipment class	CDEC Values by TSL kWh/day				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	46.84	44.33	35.71	35.51	35.06
VOP.RC.L	106.22	101.03	100.51	100.51	98.87
VOP.SC.M	30.03	29.60	26.70	26.62	26.46
VCT.RC.M	15.56	8.10	6.26	5.97	5.49
VCT.RC.L	31.13	30.58	30.29	30.29	28.85
VCT.SC.M	7.56	4.08	3.24	2.97	2.68
VCT.SC.L	13.48	13.30	12.44	12.09	11.57
VCT.SC.I	17.45	16.36	16.14	16.14	15.37
VCS.SC.M	2.36	2.17	1.81	1.81	1.39
VCS.SC.L	7.26	6.75	6.66	6.56	5.71
VCS.SC.I	18.24	17.79	17.64	17.64	16.53
SVO.RC.M	36.11	33.85	27.71	27.57	27.26
SVO.SC.M	25.74	25.36	23.29	23.24	23.12
SOC.RC.M	25.62	24.97	20.43	20.15	19.93
HZO.RC.M	14.43	14.43	14.43	14.43	14.17
HZO.RC.L	33.10	33.10	33.10	33.10	32.22
HZO.SC.M	14.76	14.76	14.60	14.49	14.26
HZO.SC.L	30.12	30.12	30.12	30.12	29.91
HCT.SC.M	1.87	0.84	0.75	0.67	0.49
HCT.SC.L	4.11	1.77	1.70	1.57	1.18
HCT.SC.I	3.22	3.07	2.86	2.86	2.13
HCS.SC.M	0.65	0.60	0.56	0.50	0.25
HCS.SC.L	1.61	1.46	1.27	1.27	0.74
PD.SC.M	3.90	3.90	2.23	1.64	1.42
SOC.SC.M	27.04	26.80	22.02	21.70	21.41

TABLE V.3—EQUATIONS REPRESENTING THE STANDARDS AT EACH TSL FOR ALL PRIMARY EQUIPMENT CLASSES

Equipment class	Trial standard levels for primary equipment classes analyzed					
	Baseline	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VCT.RC.L	0.56 × TDA + 2.61	0.45 × TDA + 2.08	0.44 × TDA + 2.05	0.43 × TDA + 2.03	0.43 × TDA + 2.03	0.41 × TDA + 1.93
VOP.RC.M	0.82 × TDA + 4.07	0.8 × TDA + 3.99	0.76 × TDA + 3.78	0.61 × TDA + 3.04	0.61 × TDA + 3.03	0.6 × TDA + 2.99

TABLE V.3—EQUATIONS REPRESENTING THE STANDARDS AT EACH TSL FOR ALL PRIMARY EQUIPMENT CLASSES—Continued

Equipment class	Trial standard levels for primary equipment classes analyzed					
	Baseline	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
SVO.RC.M ...	0.83 × TDA + 3.18	0.82 × TDA + 3.16	0.77 × TDA + 2.96	0.63 × TDA + 2.42	0.63 × TDA + 2.41	0.62 × TDA + 2.38
HZO.RC.L	0.57 × TDA + 6.88	0.57 × TDA + 6.88	0.57 × TDA + 6.88	0.57 × TDA + 6.88	0.57 × TDA + 6.88	0.55 × TDA + 6.7
HZO.RC.M ...	0.35 × TDA + 2.88	0.35 × TDA + 2.88	0.35 × TDA + 2.88	0.35 × TDA + 2.88	0.35 × TDA + 2.88	0.34 × TDA + 2.83
VCT.RC.M ...	0.22 × TDA + 1.95	0.21 × TDA + 1.87	0.11 × TDA + 0.97	0.08 × TDA + 0.75	0.08 × TDA + 0.72	0.07 × TDA + 0.66
VOP.RC.L	2.27 × TDA + 6.85	2.23 × TDA + 6.72	2.12 × TDA + 6.39	2.11 × TDA + 6.36	2.11 × TDA + 6.36	2.07 × TDA + 6.26
SOC.RC.M ..	0.51 × TDA + 0.11	0.5 × TDA + 0.11	0.49 × TDA + 0.11	0.4 × TDA + 0.09	0.39 × TDA + 0.08	0.39 × TDA + 0.08
VOP.SC.M ...	1.74 × TDA + 4.71	1.7 × TDA + 4.61	1.68 × TDA + 4.54	1.51 × TDA + 4.1	1.51 × TDA + 4.09	1.5 × TDA + 4.06
SVO.SC.M ...	1.73 × TDA + 4.59	1.67 × TDA + 4.42	1.64 × TDA + 4.35	1.51 × TDA + 4.	1.5 × TDA + 3.99	1.5 × TDA + 3.97
HZO.SC.L	1.92 × TDA + 7.08	1.92 × TDA + 7.08	1.92 × TDA + 7.08	1.92 × TDA + 7.08	1.92 × TDA + 7.08	1.91 × TDA + 7.03
HZO.SC.M ...	0.77 × TDA + 5.55	0.77 × TDA + 5.54	0.77 × TDA + 5.54	0.76 × TDA + 5.48	0.75 × TDA + 5.44	0.74 × TDA + 5.35
HCT.SC.I	0.56 × TDA + 0.43	0.55 × TDA + 0.42	0.52 × TDA + 0.4	0.49 × TDA + 0.37	0.49 × TDA + 0.37	0.36 × TDA + 0.28
VCT.SC.I	0.67 × TDA + 3.29	0.56 × TDA + 2.77	0.53 × TDA + 2.6	0.52 × TDA + 2.56	0.52 × TDA + 2.56	0.5 × TDA + 2.44
VCS.SC.I	0.38 × V + 0.88	0.36 × V + 0.84	0.35 × V + 0.82	0.35 × V + 0.81	0.35 × V + 0.81	0.33 × V + 0.76
VCT.SC.M ...	0.12 × V + 3.34	0.1 × V + 2.74	0.05 × V + 1.48	0.04 × V + 1.17	0.04 × V + 1.07	0.03 × V + 0.97
VCT.SC.L	0.53 × V + 2.92	0.25 × V + 1.35	0.24 × V + 1.33	0.23 × V + 1.25	0.22 × V + 1.21	0.21 × V + 1.16
VCS.SC.M ...	0.06 × V + 1.31	0.03 × V + 0.69	0.03 × V + 0.64	0.03 × V + 0.53	0.03 × V + 0.53	0.02 × V + 0.41
VCS.SC.L	0.21 × V + 0.72	0.14 × V + 0.48	0.13 × V + 0.44	0.13 × V + 0.44	0.13 × V + 0.43	0.11 × V + 0.38
HCT.SC.M ...	0.06 × V + 1.73	0.05 × V + 1.42	0.02 × V + 0.63	0.02 × V + 0.57	0.02 × V + 0.51	0.01 × V + 0.38
HCT.SC.L	0.36 × V + 1.98	0.29 × V + 1.57	0.12 × V + 0.68	0.12 × V + 0.65	0.11 × V + 0.6	0.08 × V + 0.45
HCS.SC.M ...	0.03 × V + 0.54	0.02 × V + 0.49	0.02 × V + 0.45	0.02 × V + 0.41	0.02 × V + 0.37	0.01 × V + 0.18
HCS.SC.L	0.2 × V + 0.69	0.15 × V + 0.53	0.14 × V + 0.48	0.12 × V + 0.42	0.12 × V + 0.42	0.07 × V + 0.24
PD.SC.M	0.13 × V + 3.51	0.07 × V + 1.98	0.07 × V + 1.98	0.04 × V + 1.13	0.03 × V + 0.83	0.03 × V + 0.72
SOC.SC.M ...	0.6 × TDA + 1.0	0.4 × TDA + 0.67	0.4 × TDA + 0.66	0.33 × TDA + 0.54	0.32 × TDA + 0.53	0.32 × TDA + 0.53

In addition to the 24 primary equipment classes analyzed, DOE evaluating existing and potentially amended standards for 23 secondary equipment classes of commercial refrigeration equipment covered in this rulemaking that were not directly analyzed in the engineering analysis. DOE's approach to evaluating standards for these secondary equipment classes involves extension multipliers developed using the engineering results for the primary equipment classes analyzed and a set of matched-pair analyses performed during the January 2009 final rule analysis.[87] In addition, DOE believes that standards for certain primary equipment classes can be directly applied to similar secondary equipment classes. Chapter 5 of the NOPR TSD discusses the development of the extension multipliers.

Using the extension multiplier approach, DOE developed an additional set of TSLs and associated equations for the secondary equipment classes, as shown in Table V.4. The TSLs shown in Table V.4 do not necessarily satisfy the criteria spelled out in section V.A. DOE is presenting the standards equations developed for each TSL for all 47 equipment classes to allow interested parties to better review the ramifications of each TSL across the range of equipment sizes on the market.

TABLE V.4—EQUATIONS REPRESENTING THE STANDARDS AT EACH TSL FOR ALL SECONDARY EQUIPMENT CLASSES

Equipment class	Trial standard levels for secondary equipment classes analyzed					
	Baseline	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.I	2.89 × TDA + 8.7	2.83 × TDA + 8.54	2.69 × TDA + 8.12	2.68 × TDA + 8.08	2.68 × TDA + 8.08	2.63 × TDA + 7.95
SVO.RC.L	2.27 × TDA + 6.85	2.23 × TDA + 6.72	2.12 × TDA + 6.39	2.11 × TDA + 6.36	2.11 × TDA + 6.36	2.07 × TDA + 6.26
SVO.RC.I	2.89 × TDA + 8.7	2.83 × TDA + 8.54	2.69 × TDA + 8.12	2.68 × TDA + 8.08	2.68 × TDA + 8.08	2.63 × TDA + 7.95
HZO.RC.I	0.72 × TDA + 8.74	0.72 × TDA + 8.74	0.72 × TDA + 8.74	0.72 × TDA + 8.74	0.72 × TDA + 8.74	0.7 × TDA + 8.5
VOP.SC.L	4.37 × TDA + 11.82	4.27 × TDA + 11.57	4.21 × TDA + 11.4	3.8 × TDA + 10.29	3.79 × TDA + 10.26	3.77 × TDA + 10.2
VOP.SC.I	5.55 × TDA + 15.02	5.43 × TDA + 14.69	5.35 × TDA + 14.48	4.83 × TDA + 13.06	4.81 × TDA + 13.03	4.78 × TDA + 12.95
SVO.SC.L	4.34 × TDA + 11.51	4.18 × TDA + 11.09	4.12 × TDA + 10.93	3.78 × TDA + 10.04	3.77 × TDA + 10.01	3.76 × TDA + 9.96
SVO.SC.I	5.52 × TDA + 14.63	5.31 × TDA + 14.09	5.23 × TDA + 13.88	4.8 × TDA + 12.75	4.79 × TDA + 12.72	4.77 × TDA + 12.65
HZO.SC.I	2.44 × TDA + 9.0	2.44 × TDA + 9.0	2.44 × TDA + 9.0	2.44 × TDA + 9.0	2.44 × TDA + 9.0	2.42 × TDA + 8.93
SOC.RC.L ...	1.08 × TDA + 0.22	1.05 × TDA + 0.23	1.02 × TDA + 0.22	0.84 × TDA + 0.18	0.83 × TDA + 0.18	0.82 × TDA + 0.18
SOC.RC.I	1.26 × TDA + 0.26	1.23 × TDA + 0.27	1.2 × TDA + 0.26	0.98 × TDA + 0.21	0.97 × TDA + 0.21	0.96 × TDA + 0.21
SOC.SC.I	1.76 × TDA + 0.36	1.72 × TDA + 0.37	1.68 × TDA + 0.36	1.37 × TDA + 0.3	1.35 × TDA + 0.29	1.34 × TDA + 0.29
VCT.RC.I	0.66 × TDA + 3.05	0.52 × TDA + 2.44	0.51 × TDA + 2.39	0.51 × TDA + 2.37	0.51 × TDA + 2.37	0.48 × TDA + 2.26
HCT.RC.M ...	0.16 × TDA + 0.13	0.16 × TDA + 0.12	0.15 × TDA + 0.12	0.14 × TDA + 0.11	0.14 × TDA + 0.11	0.1 × TDA + 0.08
HCT.RC.L	0.34 × TDA + 0.26	0.33 × TDA + 0.26	0.32 × TDA + 0.24	0.3 × TDA + 0.23	0.3 × TDA + 0.23	0.22 × TDA + 0.17
HCT.RC.I	0.4 × TDA + 0.31	0.39 × TDA + 0.3	0.37 × TDA + 0.29	0.35 × TDA + 0.27	0.35 × TDA + 0.27	0.26 × TDA + 0.2
VCS.RC.M ...	0.11 × V + 0.26	0.11 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.22
VCS.RC.L	0.23 × V + 0.54	0.22 × V + 0.51	0.22 × V + 0.5	0.21 × V + 0.5	0.21 × V + 0.5	0.2 × V + 0.46
VCS.RC.I	0.27 × V + 0.63	0.26 × V + 0.6	0.25 × V + 0.58	0.25 × V + 0.58	0.25 × V + 0.58	0.23 × V + 0.54
HCS.SC.I	0.38 × V + 0.88	0.36 × V + 0.84	0.35 × V + 0.82	0.35 × V + 0.81	0.35 × V + 0.81	0.33 × V + 0.76
HCS.RC.M ...	0.11 × V + 0.26	0.11 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.24	0.1 × V + 0.22
HCS.RC.L	0.23 × V + 0.54	0.22 × V + 0.51	0.22 × V + 0.5	0.21 × V + 0.5	0.21 × V + 0.5	0.2 × V + 0.46
HCS.RC.I	0.27 × V + 0.63	0.26 × V + 0.6	0.25 × V + 0.58	0.25 × V + 0.58	0.25 × V + 0.58	0.23 × V + 0.54

[87] The matched-pair analyses compared calculated energy consumption levels for pieces of equipment with similar designs but one major construction or operational difference; for example, vertical open remote condensing cases operating at medium and low temperatures. The relationships between these sets of units were used to determine the effect of the design or operational difference on applicable equipment. For more information, please see chapter 5 of the 2009 final rule TSD, which can be found at *http://www.regulations.gov/#!documentDetail;D=EERE-2006-STD-0126-0058*.

TABLE V.4—EQUATIONS REPRESENTING THE STANDARDS AT EACH TSL FOR ALL SECONDARY EQUIPMENT CLASSES—Continued

Equipment class	Trial standard levels for secondary equipment classes analyzed					
	Baseline	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
SOC.SC.L* ..	0.75 × V + 4.10	0.84 × TDA + 1.4	0.83 × TDA + 1.39	0.68 × TDA + 1.14	0.67 × TDA + 1.12	0.66 × TDA + 1.11

* Equipment class SOC.SC.L was inadvertently grouped under the category self-contained commercial freezers with transparent doors in the standards prescribed by EPCA, as amended by EPACT 2005. (42 U.S.C. 6313(c)(2)) The baseline expression is thus given by the expression 0.75 × V + 4.10, which is the current standard for SOC.SC.L equipment. A similar anomaly (of inadvertent classification under a different equipment category) for SOC.SC.M equipment was corrected by the standard established by AEMTCA (see section IV.C.1.d for a detailed discussion). (42 U.S.C. 6313(c)(4)) However, no such corrective action has been prescribed for standards for SOC.SC.L equipment. In establishing a new standard for SOC.SC.M equipment, AEMTCA also changed the normalization metric from volume (V) to total display area (TDA). Accordingly, DOE is proposing the amended standards for SOC.SC.M equipment with TDA as the normalization metric (see Table V.3), DOE derives the proposed standards for secondary equipment classes based on the proposed standard of a primary equipment that has similar characteristics as the secondary equipment class under consideration (see chapter 5 of the NOPR TSD for details). For the equipment class SOC.SC.L, the proposed standards were derived from the proposed standards for equipment class SOC.SC.M. Since the proposed standards for SOC.SC.M are in terms of TDA, the proposed standards for SOC.SC.L equipment have also been specified in terms of TDA. Therefore, while the baseline expression has been shown with V as the normalization metric, the expressions for TSLs 1 through 5 have been shown in terms of TDA. This change of normalization metric for equipment class SOC.SC.L is consistent with the legislative intent, evident in AEMTCA, for equipment class SOC.SC.M.

B. Economic Justification and Energy Savings

1. Economic Impacts on Commercial Customers

a. Life-Cycle Cost and Payback Period

Customers affected by new or amended standards usually incur higher purchase prices and lower operating costs. DOE evaluates these impacts on individual customers by calculating the LCC and the PBP associated with the TSLs. The results of the LCC analysis for each TSL were obtained by comparing the installed and operating costs of the equipment in the base-case scenario (scenario with no amended energy conservation standards) against the standards-case scenarios at each TSL. The energy consumption values for both the base-case and standards-case scenarios were calculated based on the DOE test procedure conditions specified in the 2012 test procedure final rule. 77 FR 10292, 10318–21 (Feb 21, 2012) The DOE test procedure adopted an industry-accepted test method and has been widely accepted as a reasonably accurate representation of the conditions to which a vast majority of the equipment covered in this rulemaking is subjected during actual use. Using the approach described in section IV.H, DOE calculated the LCC savings and PBPs for the TSLs considered in this NOPR. The LCC analysis was carried out in the form of Monte Carlo simulations. Consequently, the results of LCC analysis are distributed over a range of values, as opposed to a single deterministic value. DOE presents the mean or median values, as appropriate, calculated from the distributions of results.

Table V.5 through Table V.29 show the results of LCC analysis for each equipment class. Each table presents the important results of the LCC analysis, including mean LCC, mean LCC savings, median PBP, and distribution of customer impacts in the form of percentages of customers who experience net cost, no impact, or net benefit.

All of the equipment classes have negative LCC savings values at TSL 5. Negative average LCC savings imply that, on average, customers experience an increase in LCC of the equipment as a consequence of buying equipment associated with that particular TSL. TSL 5 is associated with the max-tech level for all the equipment classes. Vacuum insulated panel technology is the design option associated with the max-tech efficiency levels for all equipment classes. The cost increments associated with vacuum insulated panels are considerably high, and the increase in LCC indicates that this design option may not be economically justified.

The mean LCC savings associated with TSL 4 are all either positive values or zero (in the case of equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L) for all equipment classes, and the non-zero values range from $9 to $1,494. The mean LCC savings at all lower TSL levels are also positive. This implies that, on average, all the equipment classes show either no change in LCC or a decrease in LCC for TSL 1 through TSL 4. A comparison of LCC savings between TSL 4 and TSL 3, across all equipment classes, shows that the LCC savings associated with TSL 3 are either greater than or equal to the LCC savings associated with TSL 4. LCC savings are equal in cases in which both TSLs are associated with the same efficiency level.

As described in section IV.I.2, DOE used a ''roll-up'' scenario in this rulemaking. Under the roll-up scenario, DOE assumes that the market shares of the efficiency levels (in the base case) that do not meet the standard level under consideration would be ''rolled up'' into (meaning ''added to'') the market share of the efficiency level at the standard level under consideration, and the market shares of efficiency levels that are above the standard level under consideration would remain unaffected. Customers, in the base-case scenario, who buy the equipment at or above the TSL under consideration would be unaffected if the amended standard were to be set at that TSL. Customers, in the base-case scenario, who buy equipment below the TSL under consideration would be affected if the amended standard were to be set at that TSL. Among these affected customers, some may benefit from lower LCC of the equipment and some may incur net cost due to higher LCC, depending on the inputs to LCC analysis such as electricity prices, discount rates and markups. DOE's results clearly indicate that only a small percentage of customers may benefit from an amended standard that is set at TSL 5. At TSL 4, the percentage of customers who experience net benefits or no impacts ranges from 59 to 100 percent. At TSL 3, a larger percentage of customers experience net benefits or no impacts as compared to TSL 4. At TSLs 1 and 2, almost all customers experience either net benefits or no impacts.

For most of the equipment classes, the median PBPs for TSL 5 are greater than the average lifetime of the equipment, indicating that a majority of customers may not be able to recover the higher equipment installed costs through savings in operating costs throughout the life of the equipment. The median PBP values for TSL 4 range from 0.96 years to 6.40 years. The average lifetime of a majority of the commercial refrigeration equipment under consideration is 10 years. Therefore, PBP results for TSL 4 indicate that, in general, the majority of customers will be able to recover the increased purchase costs associated with equipment that is compliant with TSL 4 through operating cost savings within the lifetime of the equipment.

TABLE V.5—SUMMARY LCC AND PBP RESULTS FOR VOP.RC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	17,095	9,490	20,618	30,108	236	0	76	24	1.73
2	16,180	9,633	19,849	29,482	743	0	52	48	1.77
3	13,033	10,823	17,364	28,187	1,789	0	28	72	3.77
4	12,962	10,898	17,303	28,201	1,494	11	15	74	3.91
5	12,798	14,006	17,162	31,168	(1,669)	90	2	8	11.76

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.6—SUMMARY LCC AND PBP RESULTS FOR VOP.RC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	38,770	10,099	39,184	49,282	537	0	74	26	1.11
2	36,877	10,511	37,520	48,031	1,517	0	48	52	2.03
3	36,685	10,594	37,356	47,950	1,130	0	25	75	2.22
4	36,685	10,594	37,356	47,950	1,130	0	25	75	2.22
5	36,088	15,667	36,847	52,513	(3,693)	98	2	0	18.30

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.7—SUMMARY LCC AND PBP RESULTS FOR VOP.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	10,960	4,650	15,471	20,120	171	0	62	38	1.61
2	10,804	4,693	15,314	20,008	227	0	43	57	2.17
3	9,747	5,183	14,180	19,364	815	0	25	75	4.12
4	9,718	5,234	14,147	19,381	691	11	14	75	4.39
5	9,660	6,293	14,079	20,373	(377)	77	3	20	11.37

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.8—SUMMARY LCC AND PBP RESULTS FOR VCT.RC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted Operating Cost	LCC	Affected customers' average savings 2012$	% of Customers that Experience**			
						Net cost	No impact	Net benefit	
1	5,679	12,070	11,800	23,870	175	0	81	19	1.23
2	2,955	12,669	9,411	22,081	1,864	0	62	38	2.42
3	2,285	12,819	8,809	21,629	1,759	0	46	54	2.43
4	2,177	12,929	8,715	21,644	1,108	26	16	57	2.70
5	2,005	16,537	8,560	25,097	(2,509)	94	2	4	13.09

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.9—SUMMARY LCC AND PBP RESULTS FOR VCT.RC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	11,362	13,756	17,581	31,337	1,357	0	60	40	1.30
2	11,161	13,836	17,401	31,237	1,005	0	40	60	1.51
3	11,056	13,887	17,311	31,198	798	0	21	79	1.64
4	11,056	13,887	17,311	31,198	798	0	21	79	1.64
5	10,531	18,626	16,840	35,466	(3,624)	97	2	1	15.75

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.10—SUMMARY LCC AND PBP RESULTS FOR VCT.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period, years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	2,758	4,594	5,261	9,855	566	0	83	17	0.86
2	1,488	4,849	3,916	8,764	1,364	0	66	34	1.73
3	1,182	4,999	3,583	8,582	1,122	0	51	49	2.21
4	1,082	5,088	3,489	8,578	641	27	13	60	2.54
5	979	6,362	3,377	9,739	(596)	74	2	24	8.13

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.11—SUMMARY LCC AND PBP RESULTS FOR VCT.SC.L EQUIPMENT CLASS

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	4,921	6,101	8,222	14,323	4,186	0	76	24	0.58
2	4,853	6,120	8,150	14,270	2,523	0	60	40	0.61
3	4,541	6,271	7,811	14,082	1,984	0	44	56	0.83
4	4,411	6,364	7,692	14,056	1,343	7	15	78	0.96
5	4,222	8,077	7,486	15,562	(343)	74	2	24	3.65

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.12—SUMMARY LCC AND PBP RESULTS FOR VCT.SC.I EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	6,370	6,383	10,160	16,543	572	0	65	35	0.86
2	5,972	6,558	9,733	16,292	486	1	32	68	1.74
3	5,891	6,612	9,644	16,256	432	1	16	83	1.97
4	5,891	6,612	9,644	16,256	432	1	16	83	1.97
5	5,609	8,883	9,332	18,215	(1,592)	95	1	3	13.21

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.13—SUMMARY LCC AND PBP RESULTS FOR VCS.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	863	3,386	2,122	5,508	279	0	72	28	0.78
2	793	3,406	2,070	5,476	163	0	42	58	0.98
3	659	3,484	1,967	5,451	132	7	13	80	1.75
4	659	3,484	1,967	5,451	132	7	13	80	1.75
5	507	4,771	1,837	6,608	(1,042)	99	1	0	14.11

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.14—SUMMARY LCC AND PBP RESULTS FOR VCS.SC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	2,649	3,673	3,829	7,501	525	0	73	27	0.55
2	2,463	3,735	3,671	7,405	329	0	42	58	0.91
3	2,432	3,751	3,651	7,402	268	5	28	68	1.00
4	2,394	3,776	3,630	7,405	221	20	14	66	1.15
5	2,084	5,505	3,366	8,871	(1,274)	97	1	2	10.54

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.15—SUMMARY LCC AND PBP RESULTS FOR VCS.SC.I EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	6,657	4,148	7,526	11,674	237	0	67	33	0.80
2	6,492	4,218	7,392	11,610	177	0	32	68	2.07
3	6,438	4,243	7,357	11,600	153	3	16	81	2.42
4	6,438	4,243	7,357	11,600	153	3	16	81	2.42
5	6,034	6,535	7,013	13,548	(1,819)	99	1	0	27.19

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.16—SUMMARY LCC AND PBP RESULTS FOR SVO.RC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	13,179	8,341	16,821	25,161	74	0	75	25	1.31
2	12,355	8,547	16,098	24,645	552	0	51	49	2.64
3	10,114	9,455	14,347	23,802	1,217	0	29	71	4.34
4	10,065	9,517	14,304	23,821	1,008	13	16	72	4.50
5	9,949	11,511	14,202	25,713	(1,015)	85	3	12	11.60

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.17—SUMMARY LCC AND PBP RESULTS FOR SVO.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
9,396	3,885	12,744	16,629	324	0	61	39	1.97	9,396
9,255	3,914	12,600	16,514	335	0	43	57	2.06	9,255
8,501	4,314	11,866	16,180	588	0	25	75	4.43	8,501
8,481	4,359	11,843	16,202	492	12	14	75	4.75	8,481
8,439	5,049	11,796	16,844	(202)	69	4	27	10.36	8,439

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.18—SUMMARY LCC AND PBP RESULTS FOR SOC.RC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	9,353	12,766	15,106	27,872	118	0	82	18	1.25
2	9,115	12,799	14,906	27,704	226	0	64	36	1.44
3	7,455	13,343	13,511	26,854	998	0	47	53	3.31
4	7,356	13,570	13,443	27,012	495	29	18	53	4.41
5	7,274	15,050	13,372	28,423	(982)	89	5	6	11.88

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.19—SUMMARY LCC AND PBP RESULTS FOR HZO.RC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	5,267	8,056	8,916	16,972	NA	NA	NA	NA	NA
2	5,267	8,056	8,916	16,972	NA	NA	NA	NA	NA
3	5,267	8,056	8,916	16,972	NA	NA	NA	NA	NA
4	5,267	8,056	8,916	16,972	NA	NA	NA	NA	NA
5	5,173	9,406	8,837	18,243	(1,271)	78	22	0	161.23

''NA'' stands for not applicable. TSLs 1 through 4 are at the baseline efficiency level. Therefore, the LCC savings, distribution of customer impacts and PBP are shown as ''NA.''

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.20—SUMMARY LCC AND PBP RESULTS FOR HZO.RC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	12,082	8,895	14,989	23,884	NA	NA	NA	NA	NA
2	12,082	8,895	14,989	23,884	NA	NA	NA	NA	NA
3	12,082	8,895	14,989	23,884	NA	NA	NA	NA	NA
4	12,082	8,895	14,989	23,884	NA	NA	NA	NA	NA
5	11,759	11,301	14,718	26,019	(2,135)	86	14	0	83.78

''NA'' stands for not applicable. TSLs 1 through 4 are at the baseline efficiency level. Therefore, the LCC savings, distribution of customer impacts and PBP are shown as ''NA.''
* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.21—SUMMARY LCC AND PBP RESULTS FOR HZO.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	5,388	2,343	7,055	9,399	9	0	75	25	1.89
2	5,388	2,343	7,055	9,399	9	0	75	25	1.89
3	5,330	2,356	6,999	9,354	49	0	49	51	2.42
4	5,289	2,405	6,954	9,358	29	19	24	57	6.40
5	5,206	3,340	6,862	10,202	(822)	98	2	0	55.78

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.22—SUMMARY LCC AND PBP RESULTS FOR HZO.SC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	10,994	3,691	13,891	17,582	NA	NA	NA	NA	NA
2	10,994	3,691	13,891	17,582	NA	NA	NA	NA	NA
3	10,994	3,691	13,891	17,582	NA	NA	NA	NA	NA
4	10,994	3,691	13,891	17,582	NA	NA	NA	NA	NA
5	10,916	4,251	13,804	18,056	(474)	72	28	0	73.62

''NA'' stands for not applicable. TSLs 1 through 4 are at the baseline efficiency level. Therefore, the LCC savings, distribution of customer impacts and PBP are shown as ''NA.''
* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.23—SUMMARY LCC AND PBP RESULTS FOR HCT.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	683	2,057	1,685	3,742	107	0	70	30	0.69
2	305	2,161	1,263	3,423	359	0	38	62	2.24
3	275	2,175	1,236	3,411	307	0	25	75	2.42
4	244	2,220	1,200	3,420	254	18	12	70	3.08
5	181	2,812	1,127	3,939	(294)	89	1	10	12.26

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.24—SUMMARY LCC AND PBP RESULTS FOR HCT.SC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	1,499	2,240	2,336	4,576	217	0	75	26	0.53

TABLE V.24—SUMMARY LCC AND PBP RESULTS FOR HCT.SC.L EQUIPMENT CLASS*—Continued

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
2	667	2,337	1,589	3,926	791	0	61	39	1.00
3	647	2,344	1,574	3,918	571	0	45	55	1.05
4	572	2,403	1,513	3,916	369	23	14	63	1.47
5	432	3,204	1,385	4,590	(355)	76	1	23	7.15

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.25—SUMMARY LCC AND PBP RESULTS FOR HCT.SC.I EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	1,174	2,331	1,991	4,322	22	0	74	26	0.88
2	1,121	2,346	1,953	4,299	35	0	49	51	2.39
3	1,045	2,391	1,889	4,279	42	2	23	75	4.28
4	1,045	2,391	1,889	4,279	42	2	23	75	4.28
5	776	3,461	1,663	5,124	(811)	99	1	0	27.99

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.26—SUMMARY LCC AND PBP RESULTS FOR HCS.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	238	1,951	972	2,924	23	0	83	17	0.50
2	220	1,957	959	2,916	19	0	65	35	1.64
3	203	1,964	948	2,912	17	1	48	51	2.54
4	183	1,979	937	2,916	9	29	31	40	4.28
5	90	2,490	857	3,347	(423)	98	2	0	34.05

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.27—SUMMARY LCC AND PBP RESULTS FOR HCS.SC.L EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience**			
						Net cost	No impact	Net benefit	
1	588	1,988	1,284	3,272	75	0	50	50	0.86
2	534	2,003	1,244	3,246	81	0	33	67	1.36
3	464	2,046	1,184	3,231	81	2	16	82	2.57
4	464	2,046	1,184	3,231	81	2	16	82	2.57
5	271	2,681	1,020	3,700	(401)	98	2	0	14.98

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.28—SUMMARY LCC AND PBP RESULTS FOR PD.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of Customers that experience			
						Net cost	No impact	Net benefit	
1	1,423	3,002	2,926	5,927	1,010	0	86	14	0.53
2	1,423	3,002	2,926	5,927	1,010	0	86	14	0.53
3	815	3,121	2,322	5,444	934	0	69	31	1.10
4	597	3,348	2,112	5,460	310	41	11	48	2.27
5	517	4,347	2,031	6,379	(638)	86	1	13	7.61

* Values in parentheses are negative values.
** Percentages may not add up to 100 percent due to rounding.

TABLE V.29—SUMMARY LCC AND PBP RESULTS FOR SOC.SC.M EQUIPMENT CLASS*

TSL	Annual energy consumption kWh/yr	Life-cycle cost, all customers 2012$			Life-cycle cost savings				Median payback period years
		Installed cost	Discounted operating cost	LCC	Affected customers' average savings 2012$	% of customers that experience			
						Net cost	No impact	Net benefit	
1	9,869	12,314	14,364	26,678	646	0	70	30	1.12
2	9,783	12,339	14,301	26,640	466	0	55	45	1.24
3	8,039	12,883	12,863	25,747	1,242	0	40	60	2.35
4	7,920	13,110	12,777	25,887	740	25	16	60	2.99
5	7,814	14,591	12,687	27,277	(735)	80	5	16	7.42

*Values in parentheses are negative values.
**Percentages may not add up to 100 percent due to rounding.

b. Life-Cycle Cost Subgroup Analysis

As described in section IV.J, DOE estimated the impact of potential amended efficiency standards for commercial refrigeration equipment, at each TSL, on two customer subgroups, one belonging to the foodservice sector and one to the food-retail sector. For the small business segment in the foodservice sector, full-service restaurants were chosen as the representative subgroup, and for the food-retail sector, convenience stores with gas stations were chosen as the representative subgroup. DOE carried out two LCC subgroup analyses by using the LCC spreadsheet described in chapter 8 of the NOPR TSD, but with certain modifications. The input for business type was fixed to the identified subgroup, which ensured that the discount rates and electricity price rates associated with only that subgroup were selected in the Monte Carlo simulations (see chapter 8 of the NOPR TSD). The discount rate was further increased by applying the small firm premium to the WACC (See Table IV.9 for details). Another major modification to the LCC analysis was an added assumption that the subgroups do not have access to national accounts, which results in higher distribution channel markups for the subgroups, leading to higher equipment purchase prices. Apart from these changes, all other inputs for LCC subgroup analysis are same as those in the LCC analysis described in chapter 8 of the NOPR TSD.

The results for the small business subgroup in the foodservice sector (Table V.30, Table V.31, and Table V.32) are presented only for the self-contained equipment classes because full-service restaurants that are small businesses generally do not use remote condensing equipment. Table V.30 presents the comparison of mean LCC savings for the small business subgroup in foodservice sector (full-service restaurants) with the national average values (LCC savings results from chapter 8 of the NOPR TSD). For all TSLs in all equipment classes, the LCC savings for the small business subgroup are lower than the national average values. Table V.31 presents the percentage change in LCC savings compared to national average values for self-contained equipment. For many of the equipment classes in Table V.31, the percentage decrease in LCC savings is less than 15 percent. Equipment classes that show a substantial decrease in LCC savings, compared to national average values, are VOP.SC.M, VCT.SC.M, VCT.SC.L, VCT.SC.I, SVO.SC.M, HZO.SC.M, HCT.SC.I and PD.SC.M, which belong to the classification of self-contained display type equipment. It is uncommon to find display type equipment in small full-service restaurants. An overwhelming majority of commercial refrigeration equipment in small restaurants is composed of solid door refrigerators and freezers that are used for food storage in the kitchen. The solid-door equipment (VCS and HCS) exhibits a relatively smaller percentage decrease in LCC savings. In any case, the value of LCC savings at TSL 4 is positive for all equipment classes as shown in Table V.30. Therefore, even though the LCC savings for small business subgroup in foodservice sector are lower than the national average values, they are still positive, implying that small businesses still save money over the equipment lifetime at TSL 4. Table V.32 presents the comparison of median PBPs for the small business subgroup in the foodservice sector with national median values (median PBPs from chapter 8 of the NOPR TSD). The PBP values are higher for the small business subgroup in all cases, which is consistent with the decrease in LCC savings.

Table V.33 presents the comparison of mean LCC savings for the small business subgroup in the food-retail sector (convenience stores with gasoline stations) with the national average values (LCC savings results from chapter 8 of the NOPR TSD) at each TSL. This comparison shows mixed results, with higher LCC savings for the subgroup in some instances and lower LCC savings in others. The higher LCC savings for the subgroup are exhibited in the case of large display cases such as VOP.RC.M, VOP.RC.L, VCT.RC.M, VCT.RC.L, SVO.RC.M, and SOC.RC.M. This equipment is predominantly used in large grocery stores, where the average lifetime of the equipment was assumed to be 10 years, while the average lifetime of this equipment in convenience stores with gas stations was assumed to be 15 years (see chapter 8 of the NOPR TSD for discussion of equipment lifetime assumptions). In general, the longer the equipment lifetime, the lower the LCC values because of a longer available timeframe to offset the initial cost increases by savings in energy costs. Because the large display type equipment is predominantly used in larger grocery and multi-line retail stores, the national average values show lower LCC savings compared to the LCC savings of the subgroup. Self-contained equipment, on the other hand, was assumed to have a 10-year average lifetime in all businesses. For self-contained equipment, the subgroup LCC savings were lower than the national average LCC savings with the exception of the HCT.SC.L cases.

Table V.34 presents the percentage change in LCC savings of the customer subgroup in the food-retail sector compared to national average values at each TSL. For a majority of equipment classes that show a decrease in LCC savings for the subgroup, the percentage decrease in LCC savings is less than 15 percent. Equipment classes that show a substantial decrease in LCC savings, compared to national average values, are VOP.SC.M, SVO.SC.M, HZO.SC.M, HCT.SC.M, HCT.SC.I, and HSC.SC.M. Among these, the equipment classes that show decrease in LCC saving of greater than 15 percent at TSL 4 are VOP.SC.M (27 percent), SVO.SC.M (26 percent), HZO.SC.M (38 percent), HCT.SC.M (21 percent), HCT.SC.I (17 percent), and HCS.SC.M (15 percent). Even though the percentage decrease in

LCC savings for these equipment classes may appear to be high, the absolute value of decrease in LCC savings is small when compared to the total LCC for each equipment class. Table V.35 presents the comparison of median PBPs for small business subgroup in the foodservice sector with national median values (median PBPs from chapter 8 of the NOPR TSD) at each TSL. The PBP values are higher in the small business subgroup in all instances, including instances in which the LCC savings for the subgroup are higher than national average values. This is an expected outcome because the PBP values are obtained by dividing the increase in equipment installed cost by the first year savings in operating costs, and are not affected by the higher average lifetime of the equipment in the convenience stores with gas stations.

TABLE V.30—COMPARISON OF MEAN LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOODSERVICE SECTOR WITH THE NATIONAL AVERAGE VALUES

Equipment class*	Category	Mean LCC savings 2012$**				
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.SC.M	Small Business	$157.27	$205.50	$690.22	$576.21	($586.43)
	All Business Types	170.78	227.17	814.91	691.27	(376.52)
VCT.SC.M	Small Business	421.59	960.34	752.15	405.47	(954.55)
	All Business Types	566.18	1,363.60	1,122.14	641.05	(595.52)
VCT.SC.L	Small Business	3,127.24	1,879.37	1,433.25	941.77	(906.58)
	All Business Types	4,186.06	2,522.67	1,984.45	1,342.84	(343.16)
VCT.SC.I	Small Business	414.02	310.26	261.24	261.24	(2,036.01)
	All Business Types	572.05	486.28	431.88	431.88	(1,591.87)
VCS.SC.M	Small Business	272.26	158.67	125.72	125.72	(1,079.78)
	All Business Types	278.84	162.88	131.80	131.80	(1,042.03)
VCS.SC.L	Small Business	511.64	318.96	259.10	213.08	(1,326.22)
	All Business Types	524.52	329.33	267.81	220.83	(1,274.03)
VCS.SC.I	Small Business	231.08	170.13	146.54	146.54	(1,884.22)
	All Business Types	236.77	176.83	152.69	152.69	(1,818.87)
SVO.SC.M	Small Business	296.25	305.21	486.70	397.67	(356.12)
	All Business Types	324.33	334.89	587.90	491.99	(201.61)
HZO.SC.M	Small Business	8.16	8.16	44.26	18.90	(925.33)
	All Business Types	8.85	8.85	48.60	28.78	(821.57)
HZO.SC.L †	Small Business	NA	NA	NA	NA	(532.72)
	All Business Types	NA	NA	NA	NA	(473.71)
HCT.SC.M	Small Business	99.52	323.44	274.76	219.49	(385.92)
	All Business Types	106.59	359.48	307.26	253.60	(293.54)
HCT.SC.L	Small Business	209.05	754.27	544.14	344.36	(458.19)
	All Business Types	217.19	790.53	571.07	368.92	(354.75)
HCT.SC.I	Small Business	21.15	32.20	35.19	35.19	(926.07)
	All Business Types	21.83	34.69	42.48	42.48	(811.31)
HCS.SC.M	Small Business	22.47	18.59	16.03	7.99	(436.55)
	All Business Types	23.07	19.18	16.66	8.68	(422.79)
HCS.SC.L	Small Business	72.79	78.72	76.67	76.67	(422.16)
	All Business Types	74.69	80.97	80.72	80.72	(400.63)
PD.SC.M	Small Business	815.04	815.04	729.72	187.05	(861.56)
	All Business Types	1,009.53	1,009.53	933.59	310.43	(637.94)
SOC.SC.M	Small Business	625.01	449.27	1,149.04	651.93	(959.99)
	All Business Types	646.15	466.47	1,241.60	739.75	(735.33)

* Only self-contained equipment have been shown for this subgroup analysis because the remote condensing equipment is not generally used by small full-service restaurants.

** Values in parentheses are negative values. Negative percentage values imply decrease in LCC savings and positive percentage values imply increase in LCC savings.

† TSLs 1 through 4 for equipment class HZO.SC.L are associated with the baseline efficiency level. Hence, the LCC savings are shown as "NA".

TABLE V.31—PERCENTAGE CHANGE IN MEAN LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOODSERVICE SECTOR COMPARED TO NATIONAL AVERAGE VALUES

Equipment class* (percent)	TSL 1** (percent)	TSL 2** (percent)	TSL 3** (percent)	TSL 4** (percent)	TSL 5** (percent)
VOP.SC.M	(8)	(10)	(15)	(17)	(56)
VCT.SC.M	(26)	(30)	(33)	(37)	(60)
VCT.SC.L	(25)	(26)	(28)	(30)	(164)
VCT.SC.I	(28)	(36)	(40)	(40)	(28)
VCS.SC.M	(2)	(3)	(5)	(5)	(4)
VCS.SC.L	(2)	(3)	(3)	(4)	(4)
VCS.SC.I	(2)	(4)	(4)	(4)	(4)
SVO.SC.M	(9)	(9)	(17)	(19)	(77)
HZO.SC.M	(8)	(8)	(9)	(34)	(13)
HZO.SC.L‡	NA	NA	NA	NA	(12)
HCT.SC.M	(7)	(10)	(11)	(13)	(31)

TABLE V.31—PERCENTAGE CHANGE IN MEAN LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOODSERVICE SECTOR COMPARED TO NATIONAL AVERAGE VALUES—Continued

Equipment class* (percent)	TSL 1** (percent)	TSL 2** (percent)	TSL 3** (percent)	TSL 4** (percent)	TSL 5** (percent)
HCT.SC.L	(4)	(5)	(5)	(7)	(29)
HCT.SC.I	(3)	(7)	(17)	(17)	(14)
HCS.SC.M	(3)	(3)	(4)	(8)	(3)
HCS.SC.L	(3)	(3)	(5)	(5)	(5)
PD.SC.M	(19)	(19)	(22)	(40)	(35)
SOC.SC.M	(3)	(4)	(7)	(12)	(31)

* Only self-contained equipment have been shown for this subgroup analysis because the remote condensing equipment is not generally used by small full-service restaurants.

** Values in parentheses are negative values. Negative percentage values imply decrease in LCC savings and positive percentage values imply increase in LCC savings.

† This value is high because of change of sign from subgroup value to national average value.

‡ TSLs 1 through 4 for equipment class HZO.SC.L are associated with the baseline efficiency level. Hence, the percentage changes in LCC savings are shown as "NA".

'0%' means the value is in between −0.5% and 0.5%.

TABLE V.32—COMPARISON OF MEDIAN PAYBACK PERIODS FOR THE SMALL BUSINESS SUBGROUP IN THE FOODSERVICE SECTOR WITH NATIONAL MEDIAN VALUES

Equipment class*	Category	Median payback period years				
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.SC.M	Small Business	1.77	2.38	4.52	4.81	12.46
	All Business Types	1.61	2.17	4.12	4.39	11.37
VCT.SC.M	Small Business	0.89	1.77	2.27	2.61	8.34
	All Business Types	0.86	1.73	2.21	2.54	8.13
VCT.SC.L	Small Business	0.60	0.63	0.85	0.99	3.76
	All Business Types	0.58	0.61	0.83	0.96	3.65
VCT.SC.I	Small Business	0.93	1.89	2.14	2.14	14.34
	All Business Types	0.86	1.74	1.97	1.97	13.21
VCS.SC.M	Small Business	0.74	0.94	1.68	1.68	13.51
	All Business Types	0.78	0.98	1.75	1.75	14.11
VCS.SC.L	Small Business	0.53	0.87	0.96	1.10	10.11
	All Business Types	0.55	0.91	1.00	1.15	10.54
VCS.SC.I	Small Business	0.77	1.99	2.32	2.32	26.08
	All Business Types	0.80	2.07	2.42	2.42	27.19
SVO.SC.M	Small Business	2.15	2.25	4.83	5.17	11.30
	All Business Types	1.97	2.06	4.43	4.75	10.36
HZO.SC.M	Small Business	2.07	2.07	2.64	6.98	60.83
	All Business Types	1.89	1.89	2.42	6.40	55.78
HZO.SC.L**	Small Business	NA	NA	NA	NA	80.27
	All Business Types	NA	NA	NA	NA	73.62
HCT.SC.M	Small Business	0.77	2.49	2.69	3.43	13.64
	All Business Types	0.69	2.24	2.42	3.08	12.26
HCT.SC.L	Small Business	0.58	1.10	1.15	1.61	7.83
	All Business Types	0.53	1.00	1.05	1.47	7.15
HCT.SC.I	Small Business	0.96	2.60	4.67	4.67	30.57
	All Business Types	0.88	2.39	4.28	4.28	27.99
HCS.SC.M	Small Business	0.48	1.57	2.42	4.06	32.56
	All Business Types	0.50	1.64	2.54	4.28	34.05
HCS.SC.L	Small Business	0.82	1.30	2.47	2.47	14.38
	All Business Types	0.86	1.36	2.57	2.57	14.98
PD.SC.M	Small Business	0.53	0.53	1.11	2.28	7.63
	All Business Types	0.53	0.53	1.10	2.27	7.61
SOC.SC.M	Small Business	1.14	1.26	2.40	3.06	7.59
	All Business Types	1.12	1.24	2.35	2.99	7.42

* Only self-contained equipment have been shown for this subgroup analysis because the remote condensing equipment is not generally used by small full-service restaurants.

** TSLs 1 through 4 for equipment class HZO.SC.L are associated with the baseline efficiency level. Hence, the payback period is shown as "NA."

TABLE V.33—COMPARISON OF LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOOD-RETAIL SECTOR WITH THE NATIONAL AVERAGE VALUES

Equipment class	Category	Mean LCC savings 2012$*				
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	Small Business	$295.31	$927.25	$2,347.11	$1,970.10	($1,528.98)
	All Business Types	235.92	743.00	1,788.85	1,493.72	(1,668.79)
VOP.RC.L	Small Business	668.10	1,899.69	1,421.70	1,421.70	(3,855.19)
	All Business Types	537.27	1,516.59	1,129.51	1,129.51	(3,692.90)
VOP.SC.M	Small Business	145.72	187.71	608.29	503.17	(655.21)
	All Business Types	170.78	227.17	814.91	691.27	(376.52)
VCT.RC.M	Small Business	205.12	2,200.61	2,074.57	1,313.23	(2,663.30)
	All Business Types	175.23	1,864.44	1,758.73	1,108.13	(2,508.61)
VCT.RC.L	Small Business	1,586.15	1,177.93	937.97	937.97	(3,902.43)
	All Business Types	1,357.25	1,004.72	797.91	797.91	(3,624.20)
VCT.SC.M	Small Business	535.27	1,264.79	1,024.79	574.38	(784.35)
	All Business Types	566.18	1,363.60	1,122.14	641.05	(595.52)
VCT.SC.L	Small Business	3,980.86	2,396.41	1,864.97	1,248.55	(602.09)
	All Business Types	4,186.06	2,522.67	1,984.45	1,342.84	(343.16)
VCT.SC.I	Small Business	529.93	430.30	375.53	375.53	(1,881.48)
	All Business Types	572.05	486.28	431.88	431.88	(1,591.87)
VCS.SC.M	Small Business	271.17	157.63	124.30	124.30	(1,081.39)
	All Business Types	278.84	162.88	131.80	131.80	(1,042.03)
VCS.SC.L	Small Business	510.86	318.22	258.09	211.59	(1,328.25)
	All Business Types	524.52	329.33	267.81	220.83	(1,274.03)
VCS.SC.I	Small Business	230.24	169.16	145.08	145.08	(1,886.42)
	All Business Types	236.77	176.83	152.69	152.69	(1,818.87)
SVO.RC.M	Small Business	89.01	674.27	1,544.54	1,286.98	(949.64)
	All Business Types	73.77	551.98	1,216.77	1,008.46	(1,015.16)
SVO.SC.M	Small Business	285.37	292.93	449.78	364.68	(387.03)
	All Business Types	324.33	334.89	587.90	491.99	(201.61)
SOC.RC.M	Small Business	147.25	280.43	1,278.84	670.29	(960.27)
	All Business Types	118.36	226.26	997.89	494.51	(982.21)
HZO.RC.M**	Small Business	0.00	0.00	0.00	0.00	(1,384.63)
	All Business Types	0.00	0.00	0.00	0.00	(1,271.24)
HZO.RC.L**	Small Business	0.00	0.00	0.00	0.00	(2,306.30)
	All Business Types	0.00	0.00	0.00	0.00	(2,134.96)
HZO.SC.M	Small Business	8.05	8.05	43.45	17.89	(927.01)
	All Business Types	8.85	8.85	48.60	28.78	(821.57)
HZO.SC.L**	Small Business	0.00	0.00	0.00	0.00	(533.60)
	All Business Types	0.00	0.00	0.00	0.00	(473.71)
HCT.SC.M	Small Business	93.73	299.66	253.49	199.55	(407.29)
	All Business Types	106.59	359.48	307.26	253.60	(293.54)
HCT.SC.L	Small Business	249.39	906.61	655.15	425.64	(366.23)
	All Business Types	217.19	790.53	571.07	368.92	(354.75)
HCT.SC.I	Small Business	21.15	32.20	35.19	35.19	(926.07)
	All Business Types	21.83	34.69	42.48	42.48	(811.31)
HCS.SC.M	Small Business	22.48	18.44	15.75	7.40	(437.16)
	All Business Types	23.07	19.18	16.66	8.68	(422.79)
HCS.SC.L	Small Business	72.46	78.02	75.98	75.98	(423.21)
	All Business Types	74.69	80.97	80.72	80.72	(400.63)
PD.SC.M	Small Business	1,026.80	1,026.80	945.24	299.03	(744.27)
	All Business Types	1,009.53	1,009.53	933.59	310.43	(637.94)
SOC.SC.M	Small Business	619.20	444.70	1,138.70	643.60	(967.59)
	All Business Types	646.15	466.47	1,241.60	739.75	(735.33)

* Values in parentheses are negative values.
** TSLs 1 through 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level. Hence, the LCC savings are shown as "NA."

TABLE V.34—PERCENTAGE CHANGE IN MEAN LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOOD RETAIL SECTOR COMPARED TO NATIONAL AVERAGE VALUES

Equipment class	TSL 1* (percent)	TSL 2* (percent)	TSL 3* (percent)	TSL 4* (percent)	TSL 5* (percent)
VOP.RC.M	25	25	31	32	8
VOP.RC.L	24	25	26	26	(4)
VOP.SC.M	(15)	(17)	(25)	(27)	(74)
VCT.RC.M	17	18	18	19	(6)
VCT.RC.L	17	17	18	18	(8)
VCT.SC.M	(5)	(7)	(9)	(10)	(32)
VCT.SC.L	(5)	(5)	(6)	(7)	(75)

TABLE V.34—PERCENTAGE CHANGE IN MEAN LCC SAVINGS FOR THE SMALL BUSINESS SUBGROUP IN THE FOOD RETAIL SECTOR COMPARED TO NATIONAL AVERAGE VALUES—Continued

Equipment class	TSL 1* (percent)	TSL 2* (percent)	TSL 3* (percent)	TSL 4* (percent)	TSL 5* (percent)
VCT.SC.I	(7)	(12)	(13)	(13)	(18)
VCS.SC.M	(3)	(3)	(6)	(6)	(4)
VCS.SC.L	(3)	(3)	(4)	(4)	(4)
VCS.SC.I	(3)	(4)	(5)	(5)	(4)
SVO.RC.M	21	22	27	28	6
SVO.SC.M	(12)	(13)	(23)	(26)	(92)
SOC.RC.M	24	24	28	36	2
HZO.RC.M †	NA	NA	NA	NA	(9)
HZO.RC.L †	NA	NA	NA	NA	(8)
HZO.SC.M	(9)	(9)	(11)	(38)	(13)
HZO.SC.L†	NA	NA	NA	NA	(13)
HCT.SC.M	(12)	(17)	(17)	(21)	(39)
HCT.SC.L	15	15	15	15	(3)
HCT.SC.I	(3)	(7)	(17)	(17)	(14)
HCS.SC.M	(3)	(4)	(5)	(15)	(3)
HCS.SC.L	(3)	(4)	(6)	(6)	(6)
PD.SC.M	2	2	1	(4)	(17)
SOC.SC.M	(4)	(5)	(8)	(13)	(32)

* Values in parentheses are negative values. Negative percentage values imply decrease in LCC savings and positive percentage values imply increase in LCC savings.

† TSLs 1 through 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level. Hence, the LCC savings are zero and the decrease in LCC savings are shown as "NA."

'0%' implies the value is in between −0.5 and 0.5.

TABLE V.35—COMPARISON OF MEDIAN PAYBACK PERIODS FOR THE SMALL BUSINESS SUBGROUP IN THE FOOD-RETAIL SECTOR WITH THE NATIONAL MEDIAN VALUES

Equipment class	Category	Median payback period years				
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	Small Business	1.78	1.83	3.88	4.02	12.09
	All Business Types	1.73	1.77	3.77	3.91	11.76
VOP.RC.L	Small Business	1.15	2.10	2.30	2.30	18.90
	All Business Types	1.11	2.03	2.22	2.22	18.30
VOP.SC.M	Small Business	1.95	2.65	5.02	5.34	13.84
	All Business Types	1.61	2.17	4.12	4.39	11.37
VCT.RC.M	Small Business	1.28	2.51	2.53	2.80	13.61
	All Business Types	1.23	2.42	2.43	2.70	13.09
VCT.RC.L	Small Business	1.35	1.57	1.71	1.71	16.40
	All Business Types	1.30	1.51	1.64	1.64	15.75
VCT.SC.M	Small Business	0.98	1.95	2.49	2.87	9.17
	All Business Types	0.86	1.73	2.21	2.54	8.13
VCT.SC.L	Small Business	0.65	0.68	0.93	1.09	4.12
	All Business Types	0.58	0.61	0.83	0.96	3.65
VCT.SC.I	Small Business	1.02	2.08	2.35	2.35	15.75
	All Business Types	0.86	1.74	1.97	1.97	13.21
VCS.SC.M	Small Business	0.79	1.01	1.79	1.79	14.45
	All Business Types	0.78	0.98	1.75	1.75	14.11
VCS.SC.L	Small Business	0.56	0.93	1.03	1.18	10.80
	All Business Types	0.55	0.91	1.00	1.15	10.54
VCS.SC.I	Small Business	0.82	2.12	2.48	2.48	27.85
	All Business Types	0.80	2.07	2.42	2.42	27.19
SVO.RC.M	Small Business	1.36	2.74	4.49	4.66	12.01
	All Business Types	1.31	2.64	4.34	4.50	11.60
SVO.SC.M	Small Business	2.29	2.40	5.18	5.55	12.12
	All Business Types	1.97	2.06	4.43	4.75	10.36
SOC.RC.M	Small Business	1.28	1.48	3.41	4.54	12.24
	All Business Types	1.25	1.44	3.31	4.41	11.88
HZO.RC.M*	Small Business	0.00	0.00	0.00	0.00	166.41
	All Business Types	0.00	0.00	0.00	0.00	161.23
HZO.RC.L*	Small Business	0.00	0.00	0.00	0.00	86.47
	All Business Types	0.00	0.00	0.00	0.00	83.78
HZO.SC.M	Small Business	2.14	2.14	2.74	7.23	62.97
	All Business Types	1.89	1.89	2.42	6.40	55.78
HZO.SC.L*	Small Business	0.00	0.00	0.00	0.00	83.02
	All Business Types	0.00	0.00	0.00	0.00	73.62
HCT.SC.M	Small Business	0.80	2.60	2.81	3.58	14.23
	All Business Types	0.69	2.24	2.42	3.08	12.26

TABLE V.35—COMPARISON OF MEDIAN PAYBACK PERIODS FOR THE SMALL BUSINESS SUBGROUP IN THE FOOD-RETAIL SECTOR WITH THE NATIONAL MEDIAN VALUES—Continued

Equipment class	Category	Median payback period years				
		TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
HCT.SC.L	Small Business	0.59	1.12	1.17	1.65	8.01
	All Business Types	0.53	1.00	1.05	1.47	7.15
HCT.SC.I	Small Business	0.96	2.60	4.67	4.67	30.57
	All Business Types	0.88	2.39	4.28	4.28	27.99
HCS.SC.M	Small Business	0.51	1.68	2.60	4.39	34.88
	All Business Types	0.50	1.64	2.54	4.28	34.05
HCS.SC.L	Small Business	0.88	1.40	2.63	2.63	15.35
	All Business Types	0.86	1.36	2.57	2.57	14.98
PD.SC.M	Small Business	0.58	0.58	1.22	2.50	8.40
	All Business Types	0.53	0.53	1.10	2.27	7.61
SOC.SC.M	Small Business	1.23	1.36	2.58	3.28	8.13
	All Business Types	1.12	1.24	2.35	2.99	7.42

* TSLs 1 through 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level. Hence, the payback period is shown as "NA."

2. Economic Impacts on Manufacturers

DOE performed an MIA to estimate the impact of amended energy conservation standards on manufacturers of commercial refrigeration equipment. The following section describes the expected impacts on manufacturers at each TSL. Chapter 12 of the NOPR TSD explains the analysis in further detail.

a. Industry Cash-Flow Analysis Results

The following tables depict the financial impacts (represented by changes in INPV) of amended energy standards on manufacturers as well as the conversion costs that DOE estimates manufacturers would incur for all equipment classes at each TSL. To evaluate the range of cash flow impacts on the commercial refrigeration industry, DOE modeled two different scenarios using different assumptions for markups that correspond to the range of anticipated market responses to amended standards.

To assess the lower (less severe) end of the range of potential impacts, DOE modeled a preservation of gross margin percentage markup scenario, in which a uniform "gross margin percentage" markup was applied across all potential efficiency levels. In this scenario, DOE assumed that a manufacturer's absolute dollar markup would increase as production costs increase in the amended standards case. Manufacturers have indicated that it is optimistic to assume that they would be able to maintain the same gross margin percentage markup as their production costs increase in response to an amended efficiency standard, particularly at higher TSLs. To assess the higher (more severe) end of the range of potential impacts, DOE modeled the preservation of operating profit markup scenario, which assumes that manufacturers would be able to earn the same operating margin in absolute dollars in the amended standards case as in the base case. Table V.36 and Table V.37 show the potential INPV impacts for commercial refrigeration equipment manufacturers at each TSL: Table V.36 reflects the lower bound of impacts and Table V.37 represents the upper bound.

Each of the modeled scenarios results in a unique set of cash flows and corresponding industry values at each TSL. In the following discussion, the INPV results refer to the difference in industry value between the base case and each potential amended standards case that results from the sum of discounted cash flows from the base year 2013 through 2046, the end of the analysis period. To provide perspective on the short-run cash flow impact, DOE includes in the discussion of the results below a comparison of free cash flow between the base case and the standards case at each TSL in the year before amended standards take effect.

TABLE V.36—MANUFACTURER IMPACT ANALYSIS FOR COMMERCIAL REFRIGERATION EQUIPMENT—PRESERVATION OF GROSS MARGIN PERCENTAGE MARKUP SCENARIO*

	Units	Base case	Trial standard level				
			1	2	3	4	5
INPV	2012$ Millions	1,162.0	1,158.4	1,146.9	1,135.7	1,116.1	1,136.5
Change in INPV	2012$ Millions		(3.6)	(15.2)	(26.3)	(45.9)	(25.5)
	(%)		(0.31)	(1.30)	(2.26)	(3.95)	(2.20)
Product Conversion Costs.	2012$ Millions		8.0	9.9	10.5	11.2	68.0
Capital Conversion Costs.	2012$ Millions			18.4	42.9	76.3	252.4
Total Conversion Costs.	2012$ Millions		8.0	28.3	53.4	87.5	320.4

* Values in parentheses are negative values.

TABLE V.37—MANUFACTURER IMPACT ANALYSIS FOR COMMERCIAL REFRIGERATION EQUIPMENT—PRESERVATION OF OPERATING PROFIT MARKUP SCENARIO*

	Units	Base case	Trial standard level				
			1	2	3	4	5
INPV	2012$ Millions	1,162.0	1,155.2	1,135.6	1,102.8	1,069.4	646.0
Change in INPV	2012$ Millions		(6.8)	(26.4)	(59.2)	(92.6)	(516.0)
	(%)		(0.58)	(2.27)	(5.09)	(7.97)	(44.41)
Product Conversion Costs.	2012$ Millions		8.0	9.9	10.5	11.2	68.0
Capital Conversion Costs.	2012$ Millions			18.4	42.9	76.3	252.4
Total Conversion Costs.	2012$ Millions		8.0	28.3	53.4	87.5	320.4

* Values in parentheses are negative values.

At TSL 1, DOE estimates impacts on INPV for commercial refrigeration equipment manufacturers to range from −$6.8 million to −$3.6 million, or a change in INPV of −0.58 percent to −0.31 percent. At this potential standard level, industry free cash flow is estimated to decrease by approximately 2.85 percent to $89.6 million, compared to the base-case value of $92.2 million in the year before the compliance date (2016).

DOE anticipates no capital conversion costs at TSL 1 because manufacturers would be able to make simple component swaps to meet the efficiency levels for each equipment class at this TSL. However, small product conversion costs may be incurred in order to incorporate the new components in existing designs.

At TSL 2, DOE estimates impacts on INPV for commercial refrigeration equipment manufacturers to range from −$26.4 million to −$15.2 million, or a change in INPV of −2.27 percent to −1.30 percent. At this potential standard level, industry free cash flow is estimated to decrease by approximately 12.48 percent to $80.7 million, compared to the base-case value of $92.2 million in the year before the compliance date (2016).

At TSL 2, DOE expects mild impacts on the industry. While capital conversion costs ramp up to $18.4 million for the industry, these costs are entirely accounted for by the VOP.RC.L and VCT.RC.L equipment classes. This is due to the potential need for foam insulation that is a half-inch thicker to meet a standard set at this level. Product conversion costs also slightly increase as design options that require new UL or NSF certification are incorporated. Detailed discussion can be found in chapter 12 of NOPR TSD.

At TSL 3, DOE estimates impacts on INPV for commercial refrigeration equipment manufacturers to range from −$59.2 million to −$26.3 million, or a change in INPV of −5.09 percent to −2.26 percent. At this potential standard level, industry free cash flow is estimated to decrease by approximately 24.65 percent to $69.5 million, compared to the base-case value of $92.2 million in the year before the compliance date (2016).

DOE expects mild, though slightly higher, conversion costs at TSL 3. The majority of the capital conversion costs are associated with the potential need for additional foam insulation for high-volume products, such as VCS.SC.M, which accounts for approximately 27 percent of total shipments, and for VCS.SC.L, which accounts for approximately16 percent. In total, DOE expects 8 of the 24 equipment classes to require new production equipment due to higher standards at this level.

At TSL 4, DOE estimates impacts on INPV for commercial refrigeration equipment manufacturers to range from −$92.6 million to −$45.9 million, or a change in INPV of −7.97 percent to −3.95 percent. At this proposed standard level, industry free cash flow is estimated to decrease by approximately 41.19 percent to $54.2 million, compared to the base-case value of $92.2 million in the year before the compliance date (2016).

At TSL 4, the drop in INPV is largely driven by continued increases in conversion costs. The increase in conversion costs is caused by the need for new tooling to accommodate additional foam insulation. At TSL 4, DOE expects 18 of the 24 equipment classes to require new production equipment due to higher standards.

At TSL 5, DOE estimates impacts on INPV for commercial refrigeration equipment manufacturers to range from −$516.0 million to −$25.5 million, or a change in INPV of −44.41 percent to 2.20 percent. At this potential standard level, industry free cash flow is estimated to decrease by approximately 147.31 percent to −$43.6 million, compared to the base-case value of $92.2 million in the year before the compliance date (2016).

A substantial increase in conversion costs are expected at TSL 5 due to the possible need for vacuum insulated panel technology required to meet a standard at TSL 5. Vacuum insulated panels are not currently used by any commercial refrigeration equipment manufacturers, and the production of vacuum insulated panels would require processes different from those used to produce standard foam panels. Therefore, high R&D investments may be necessary to redesign commercial refrigeration equipment cases. It is possible that substantial new equipment would be necessary to produce vacuum insulated panels for commercial refrigeration equipment applications. Current panel production equipment that cannot be used to produce vacuum insulated panels would be retired before it reaches the end of its useful life and would become a stranded asset.

b. Impacts on Direct Employment

To quantitatively assess the impacts of amended energy conservation standards on employment, DOE used the GRIM to estimate the domestic labor expenditures and number of employees in the base case and at each TSL from 2013 through 2046. DOE used statistical data from the U.S. Census Bureau's 2011 Annual Survey of Manufacturers (ASM), the results of the engineering analysis, the commercial refrigeration equipment shipments forecast, and interviews with manufacturers to determine the inputs necessary to calculate industry-wide labor expenditures and domestic employment levels. Labor expenditures related to manufacturing of the product are a function of the labor intensity of the product, the sales volume, and an assumption that wages remain fixed in

real terms over time. The total labor expenditures in each year are calculated by multiplying the MPCs by the labor percentage of MPCs.

The total labor expenditures in the GRIM were then converted to domestic production employment levels by dividing production labor expenditures by the annual payment per production worker (production worker hours times the labor rate found in the U.S. Census Bureau's 2011 ASM). The estimates of production workers in this section cover workers, including line supervisors who are directly involved in fabricating and assembling a product within the OEM facility. Workers performing services that are closely associated with production operations, such as materials handling tasks using forklifts, are also included as production labor. DOE's estimates only account for production workers who manufacture the specific products covered by this rulemaking.

TABLE V.38—POTENTIAL CHANGES IN THE NUMBER OF COMMERCIAL REFRIGERATION EQUIPMENT PRODUCTION WORKERS IN 2017

	Base case	Trial Standard Level*				
		1	2	3	4	5
Total Number of Domestic Production Workers in 2017 (assuming no changes in production locations)	3,672	3,672	3,672	3,672	3,672	3,925
Range of Potential Changes in Domestic Production Workers in 2017**		−3,672 to 0	−3,672 to 0	−3,672 to 0	−3,672 to 0	−3,672 to 253

* Numbers in parentheses are negative numbers.
** DOE presents a range of potential employment impacts, where the lower range represents the scenario in which all domestic manufacturers move production to other countries.

The employment impacts shown in Table V.38 represent the potential production employment changes that could result following the compliance date of an amended energy conservation standard. The upper end of the results in the table estimates the maximum increase in the number of production workers after the implementation of new energy conservation standards and it assumes that manufacturers would continue to produce the same scope of covered products within the United States. The lower end of the range indicates the total number of U.S. production workers in the industry who could lose their jobs if all existing production were moved outside of the United States. Though manufacturers stated in interviews that shifts in production to foreign countries is unlikely, the industry did not provide enough information for DOE fully quantify what percentage of the industry would move production at each evaluated standard level.

The majority of design options analyzed in the engineering analysis require manufacturers to purchase more-efficient components from suppliers. These components do not require significant additional labor to assemble. A key component of a commercial refrigeration equipment unit that requires fabrication labor by the commercial refrigeration equipment manufacturer is the shell of the unit, which needs to be formed and foamed in. Although this activity may require new production equipment if thicker insulation is needed to meet higher efficiency levels, the process of building the panels would essentially remain the same, and therefore require no additional labor costs. As a result, labor needs are not expected to increase as the amended energy conservation standard increases from baseline to TSL 4.

At TSL 5, the introduction of hybrid vacuum insulation panels may lead to greater labor requirements. In general, the production and handling of hybrid VIPs will require more labor than the production of standard panels. This is due to the delicate nature of VIPs and the additional labor necessary to embed them into a hybrid panel. The additional labor and handling associated with hybrid panels account for the increase in labor at the max-tech trial standard level.

DOE notes that the employment impacts discussed here are independent of the employment impacts to the broader U.S. economy, which are documented in the Employment Impact Analysis, chapter 16 of the TSD.

c. Impacts on Manufacturing Capacity

According to the majority of commercial refrigeration equipment manufacturers interviewed, amended energy conservation standards will not significantly affect manufacturers' production capacities. Any necessary redesign of commercial refrigeration equipment would not change the fundamental assembly of the equipment, but manufacturers do anticipate some potential for minor changes to tooling. The most significant of these would come as a result of any redesigns performed to accommodate additional foam insulation thickness. Additionally, most of the design options being evaluated are already available on the market as product options. Thus, DOE believes manufacturers would be able to maintain manufacturing capacity levels and continue to meet market demand under amended energy conservation standards.

d. Impacts on Subgroups of Manufacturers

Small manufacturers, niche equipment manufacturers, and manufacturers exhibiting a cost structure substantially different from the industry average could be affected disproportionately. As discussed in section IV.K, using average cost assumptions to develop an industry cash-flow estimate is inadequate to assess differential impacts among manufacturer subgroups.

For commercial refrigeration equipment, DOE identified and evaluated the impact of amended energy conservation standards on one subgroup: small manufacturers. The SBA defines a ''small business'' as having 750 employees or less for NAICS 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.'' Based on this definition, DOE identified 32 manufacturers in the commercial refrigeration equipment industry that are small businesses.

For a discussion of the impacts on the small manufacturer subgroup, see the regulatory flexibility analysis in section VI.B of this notice and chapter 12 of the NOPR TSD.

e. Cumulative Regulatory Burden

While any one regulation may not impose a significant burden on manufacturers, the combined effects of recent or impending regulations may

have serious consequences for some manufacturers, groups of manufacturers, or an entire industry. Assessing the impact of a single regulation may overlook this cumulative regulatory burden. In addition to energy conservation standards, other regulations can significantly affect manufacturers' financial operations. Multiple regulations affecting the same manufacturer can strain profits and lead companies to abandon product lines or markets with lower expected future returns than competing products. For these reasons, DOE conducts an analysis of cumulative regulatory burden as part of its rulemakings pertaining to appliance efficiency.

During previous stages of this rulemaking, DOE identified a number of requirements in addition to amended energy conservation standards for commercial refrigeration equipment. The following section briefly addresses comments DOE received with respect to cumulative regulatory burden and summarizes other key related concerns that manufacturers raised during interviews.

Certification, Compliance, and Enforcement Rule

Multiple manufacturers have expressed concerns about the CC&E burdens for commercial refrigeration equipment. Traulsen stated that CC&E is the most significant cost item in terms of internal resources in the form of time and direct expenses. (Traulsen, No. 45 at pp. 4–5) NEEA expressed the opinion that the most significant issue associated with manufacturer impacts is testing and compliance for a wide array of equipment offerings, especially considering the large number of variations on single models. NEEA also agreed with manufacturers that testing each variation would create a significant potential burden, especially on small manufacturers. (NEEA, No. 36 at p. 7) AHRI stated that the CC&E requirements put in place by DOE have the potential to bankrupt the industry due to the excessive number of tests required. (AHRI, No. 43 at p. 3) In addition, Southern Store Fixtures stated that it would be difficult to produce information to estimate the compliance testing burden on manufacturers, as the certification and compliance requirements had not yet been finalized. (Southern Store Fixtures, Public Meeting Transcript, No. 31 at pp. 149–50) Southern Store Fixtures added that it is impossible to determine potential impacts of testing and certification on manufacturers until the issue of basic model is clarified. (Southern Store Fixtures, No. 38 at p. 1)

DOE understands that testing and certification requirements may have a significant impact on manufacturers, and the CC&E burden is identified as a key issue in the MIA. DOE also understands that CC&E requirements can be particularly onerous for manufacturers producing low volume or highly customized commercial refrigeration equipment. As a result, DOE is conducting a rulemaking to expand AEDM coverage and has issued a proposed rule to permit the application of AEDMs for commercial refrigeration equipment. 77 FR 32038 (May 31, 2012). More information about the AEDM rulemaking can be found at: *www1.eere.energy.gov/buildings/appliance_standards/certification_enforcement.html*.

EPA and ENERGY STAR

Some stakeholders also expressed concern regarding potential conflicts with other certification programs. Traulsen stated that redundancy of testing given other Federal programs (such as EPA ENERGY STAR), where there may be conflicting criteria, increases cost, and that cross-references to other databases with inconsistent tests, classes, and enforcement adds further complications. Traulsen estimated that the financial impact of meeting DOE and EPA ENERGY STAR requirements has been greater than 0.5 percent of revenue, and stated that it would be beneficial to reconcile the differences between DOE and EPA standards. (Traulsen, No. 45 at pp. 5–6) NEEA stated that the burden of certifications and associated testing is inherent in the manufacturing industry, and that this burden should have little to do with the standards rulemaking. However, NEEA added, any steps that can be taken to harmonize test methods and procedures between certifications should be taken. (NEEA, No. 36 at p. 7)

DOE realizes that the cumulative effect of several regulations on an industry may significantly increase the burden faced by manufacturers that need to comply with multiple regulations and certification programs from different organizations and levels of government. However, DOE notes that certain standards, such as ENERGY STAR, are optional for manufacturers. Harmonizing of test methods and procedures is not part of the energy conservation standards rulemaking. In its test procedure rulemaking, which culminated in the publication of the February 2012 test procedure final rule (77 FR 10292 (Feb. 21, 2012)), DOE attempted to set the test procedure in such a way so as to maximize the similarities between the DOE test procedure and the test procedure required for ENERGY STAR certification.

Other Federal Regulations

AHRI stated that there are several legislative and regulatory activities that could significantly burden manufacturers of commercial refrigeration equipment, including the upcoming amended energy conservation standards for walk-in coolers and freezers. AHRI also added that climate change bills that could be presented before Congress could have significant negative impact on the availability and price of HFC refrigerants. (AHRI, No. 43 at p. 4)

DOE recognizes the additional burden faced by manufacturers that produce both commercial refrigeration equipment and walk-in coolers and freezers. Companies that produce a wide range of regulated equipment may be faced with more capital and equipment design development expenditures than competitors with a narrower scope of production. However, DOE cannot consider the quantitative impacts of amended standards that have not yet been finalized, such as those for walk-ins. Likewise, DOE cannot consider the impacts of potential climate change bills because any potential impacts would be speculative in the absence of finalized legislation.

State Regulations

AHRI stated that California is currently working on new regulations as part of Title 24 that will likely establish new prescriptive requirements on commercial refrigeration equipment beginning in 2013. Additionally, AHRI added, other States on the West Coast are following California's lead and are likely to implement similar regulations in the near future. Finally, AHRI commented that several States have enacted their own climate change legislation, including regulations established by CARB to limit GHGs and reduce the usage of high-GWP refrigerants such as HFCs. AHRI stated that CARB will implement these regulations in 2011. (AHRI, No. 43 at p. 4)

According to the latest California Code of Regulations, title 24, part 6, any appliance for which there is a California energy conservation standard established in the California Appliance Efficiency Regulations may be installed only if the manufacturer has certified to the CEC, as specified in those regulations, that the appliance complies with the applicable standard for that appliance. The Commission's appliance efficiency regulations require that the

MDEC (in kilowatt-hours) for commercial refrigerators manufactured on or after January 1, 2010 does not exceed the following:

- Refrigerators with solid doors: 0.10V + 2.04
- refrigerators with transparent doors: 0.12V + 3.34
- freezers with solid doors: 0.40V + 1.38
- freezers with transparent doors: 0.75V + 4.10
- refrigerator/freezers with solid doors: the greater of 0.27AV–0.71 or 0.70
- refrigerators with self-condensing unit designed for pull-down temperature applications: 0.126V + 3.51

Since these standards are identical to the ones prescribed in EPACT 2005, and the efficiency levels set by the current rulemaking will either exceed or be equivalent to the EPACT 2005 levels, DOE does not expect the Title 24 regulations to create a cumulative regulatory burden on manufacturers. California has started a rulemaking proceeding to adopt changes to the building energy efficiency standards contained in the California Code of Regulations, title 24, part 6, but the CEC is currently in the pre-rulemaking stage and amended standards will not be published until 2013.

Further, CARB is currently limiting the in-State use of high-GWP refrigerants in non-residential refrigeration systems through its Refrigerant Management Program, effective January 1, 2011.[88] According to this new regulation, facilities with refrigeration systems that have a refrigerant capacity exceeding 50 pounds must repair leaks within 14 days of detection, maintain on-site records of all leak repairs, and keep receipts of all refrigerant purchases. The regulation applies to any person or company that installs, services, or disposes of appliances with high-GWP refrigerants. Refrigeration systems with a refrigerant capacity exceeding 50 pounds typically belong to food retail operations with remote condensing racks that store refrigerant serving multiple commercial refrigeration equipment units within a business. However, commercial refrigeration equipment units in food retail are usually installed and serviced by refrigeration contractors, not manufacturers. As a result, although these CARB regulations do apply to refrigeration technicians and owners of facilities with refrigeration systems, they are unlikely to represent a regulatory burden for commercial refrigeration manufacturers.

DOE discusses these and other requirements, and includes the full details of the cumulative regulatory burden analysis, in chapter 12 of the NOPR TSD.

3. National Impact Analysis

a. Amount and Significance of Energy Savings

DOE estimated the NES by calculating the difference in annual energy consumption for the base-case scenario and standards-case scenario at each TSL for each equipment class and summing up the annual energy savings for all equipment purchased in 2017–2046. The energy consumption calculated in the NIA is source energy, taking into account losses in the generation and transmission of electricity as discussed in section IV.I.

Table V.39 presents the NES for all equipment classes at each TSL and the sum total of NES for each TSL and Table V.40 presents estimated FFC energy savings for each considered TSL. The total NES progressively increases from 0.236 quads at TSL 1 to 1.278 quads at TSL 5. Table V.41 presents the energy savings at each TSL for each equipment class in the form of percentage of the cumulative energy use of the equipment stock in the base case scenario.

TABLE V.39—CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS FOR EQUIPMENT PURCHASED IN 2017–2046

Equipment class	Quads *				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.007	0.045	0.238	0.244	0.257
VOP.RC.L	0.001	0.005	0.006	0.006	0.009
VOP.SC.M	0.001	0.003	0.017	0.018	0.019
VCT.RC.M	0.000	0.007	0.009	0.009	0.010
VCT.RC.L	0.061	0.071	0.078	0.078	0.121
VCT.SC.M	0.011	0.057	0.074	0.081	0.092
VCT.SC.L	0.005	0.005	0.006	0.007	0.008
VCT.SC.I	0.001	0.003	0.003	0.003	0.005
VCS.SC.M	0.047	0.064	0.111	0.111	0.176
VCS.SC.L	0.042	0.064	0.068	0.076	0.144
VCS.SC.I	0.000	0.000	0.000	0.000	0.001
SVO.RC.M	0.002	0.029	0.139	0.142	0.150
SVO.SC.M	0.004	0.006	0.021	0.022	0.023
SOC.RC.M	0.001	0.002	0.017	0.019	0.020
HZO.RC.M	-	-	-	-	0.001
HZO.RC.L	-	-	-	-	0.009
HZO.SC.M	0.000	0.000	0.000	0.000	0.000
HZO.SC.L	-	-	-	-	0.000
HCT.SC.M	0.000	0.000	0.000	0.000	0.001
HCT.SC.L	0.001	0.004	0.004	0.005	0.006
HCT.SC.I	0.000	0.000	0.001	0.001	0.005
HCS.SC.M	0.001	0.001	0.002	0.004	0.013
HCS.SC.L	0.001	0.001	0.002	0.002	0.005
PD.SC.M	0.047	0.047	0.105	0.157	0.181
SOC.SC.M	0.000	0.000	0.002	0.002	0.002

[88] California Air Resources Board. *Refrigerant Management Program Final Regulation.* 2011. *Cal. Code Regs. tit. 17, § 95386.* (Last accessed March 16, 2012.) *www.arb.ca.gov/cc/reftrack/reftrackrule.html.*

TABLE V.39—CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS FOR EQUIPMENT PURCHASED IN 2017–2046—Continued

Equipment class	Quads *				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
Net NES	0.233	0.416	0.905	0.985	1.257

'-' represents zero energy savings, since TSLs 1 through 4 for the equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.
* A value of 0.000 means NES values are less than 0.0005 quads.

TABLE V.40—CUMULATIVE NATIONAL FULL-FUEL-CYCLE ENERGY SAVINGS FOR EQUIPMENT PURCHASED IN 2017–2046

Equipment class	Quads *				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.007	0.046	0.242	0.248	0.262
VOP.RC.L	0.001	0.005	0.006	0.006	0.009
VOP.SC.M	0.001	0.003	0.018	0.018	0.019
VCT.RC.M	0.000	0.007	0.009	0.009	0.010
VCT.RC.L	0.062	0.072	0.079	0.079	0.123
VCT.SC.M	0.011	0.058	0.075	0.083	0.094
VCT.SC.L	0.005	0.006	0.006	0.007	0.008
VCT.SC.I	0.001	0.003	0.003	0.003	0.005
VCS.SC.M	0.048	0.065	0.112	0.112	0.179
VCS.SC.L	0.043	0.065	0.070	0.077	0.146
VCS.SC.I	0.000	0.000	0.000	0.000	0.001
SVO.RC.M	0.002	0.030	0.141	0.144	0.152
SVO.SC.M	0.004	0.006	0.022	0.022	0.023
SOC.RC.M	0.001	0.002	0.018	0.019	0.020
HZO.RC.M	-	-	-	-	0.001
HZO.RC.L	-	-	-	-	0.009
HZO.SC.M	0.000	0.000	0.000	0.000	0.000
HZO.SC.L	-	-	-	-	0.000
HCT.SC.M	0.000	0.000	0.000	0.000	0.001
HCT.SC.L	0.001	0.004	0.004	0.005	0.006
HCT.SC.I	0.000	0.000	0.001	0.001	0.005
HCS.SC.M	0.001	0.001	0.002	0.004	0.013
HCS.SC.L	0.001	0.001	0.002	0.002	0.005
PD.SC.M	0.048	0.048	0.106	0.159	0.184
SOC.SC.M	0.000	0.000	0.002	0.002	0.002
Net NES	0.236	0.422	0.920	1.001	1.278

'-' represents zero energy savings, since TSLs 1 through 4 for the equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.
* A value of 0.000 means NES values are less than 0.0005 quads.

TABLE V.41—CUMULATIVE ENERGY SAVINGS BY TSL FOR EACH EQUIPMENT CLASS EXPRESSED AS A PERCENTAGE OF CUMULATIVE BASE-CASE ENERGY USAGE OF THE NEW COMMERCIAL REFRIGERATION EQUIPMENT STOCK PURCHASED IN 2017–2046

Equipment class	Total base-case energy use quads *	TSL Savings as percent of total base-case energy use				
		TSL 1 (percent)	TSL 2 (percent)	TSL 3 (percent)	TSL 4 (percent)	TSL 5 (percent)
VOP.RC.M	1.606	0	3	15	15	16
VOP.RC.L	0.203	0	3	3	3	4
VOP.SC.M	0.231	1	1	8	8	8
VCT.RC.M	0.027	1	25	33	35	39
VCT.RC.L	1.198	5	6	7	7	10
VCT.SC.M	0.235	5	25	32	35	40
VCT.SC.L	0.036	15	15	18	19	22
VCT.SC.I	0.047	3	6	7	7	10
VCS.SC.M	0.472	10	14	24	24	38
VCS.SC.L	0.720	6	9	10	11	20
VCS.SC.I	0.012	1	3	3	3	8
SVO.RC.M	0.990	0	3	14	15	15
SVO.SC.M	0.300	1	2	7	7	8
SOC.RC.M	0.173	0	1	10	11	12
HZO.RC.M	0.066	0	0	0	0	1
HZO.RC.L	0.475	0	0	0	0	2
HZO.SC.M	0.015	0	0	1	1	2

TABLE V.41—CUMULATIVE ENERGY SAVINGS BY TSL FOR EACH EQUIPMENT CLASS EXPRESSED AS A PERCENTAGE OF CUMULATIVE BASE-CASE ENERGY USAGE OF THE NEW COMMERCIAL REFRIGERATION EQUIPMENT STOCK PURCHASED IN 2017–2046—Continued

Equipment class	Total base-case energy use quads *	TSL Savings as percent of total base-case energy use				
		TSL 1 (percent)	TSL 2 (percent)	TSL 3 (percent)	TSL 4 (percent)	TSL 5 (percent)
HZO.SC.L	0.063	0	0	0	0	0
HCT.SC.M	0.001	5	40	43	48	57
HCT.SC.L	0.012	6	33	33	38	50
HCT.SC.I	0.017	1	3	7	7	27
HCS.SC.M	0.026	2	5	8	14	49
HCS.SC.L	0.010	8	13	21	21	48
PD.SC.M	0.401	12	12	27	40	46
SOC.SC.M	0.014	3	3	13	13	14
Totals	7.349	3	6	13	14	17

* Energy use of the entire commercial refrigeration equipment stock in the base-case scenario in 2017–2046 plus the energy use of the surviving stock of equipment in 2047–2060 for equipment purchased in 2017–2046.

'-' represents zero energy savings, since TSLs 1 through 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.

Circular A–4 requires agencies to present analytical results, including separate schedules of the monetized benefits and costs that show the type and timing of benefits and costs. Circular A–4 also directs agencies to consider the variability of key elements underlying the estimates of benefits and costs. For this rulemaking, DOE undertook a sensitivity analysis using nine rather than 30 years of product shipments. The choice of a 9-year period is a proxy for the timeline in EPCA for the review of certain energy conservation standards and potential revision of and compliance with such revised standards.[89] We would note that the review timeframe established in EPCA generally does not overlap with the product lifetime, product manufacturing cycles or other factors specific to commercial refrigeration equipment. Thus, this information is presented for informational purposes only and is not indicative of any change in DOE's analytical methodology. The primary and full-fuel cycle NES results based on a 9-year analysis period are presented in Table V.42 and Table V.43, respectively. The impacts are counted over the lifetime of products purchased in 2017–2025.

TABLE V.42—CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS FOR 9-YEAR ANALYSIS PERIOD

[Equipment purchased in 2017–2025]

Equipment class	quads*				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.001	0.009	0.049	0.050	0.053
VOP.RC.L	0.000	0.001	0.001	0.001	0.002
VOP.SC.M	0.000	0.001	0.004	0.004	0.004
VCT.RC.M	0.000	0.001	0.002	0.002	0.002
VCT.RC.L	0.012	0.015	0.016	0.016	0.025
VCT.SC.M	0.002	0.012	0.015	0.017	0.019
VCT.SC.L	0.001	0.001	0.001	0.001	0.002
VCT.SC.I	0.000	0.001	0.001	0.001	0.001
VCS.SC.M	0.010	0.013	0.023	0.023	0.036
VCS.SC.L	0.009	0.013	0.014	0.016	0.030
VCS.SC.I	0.000	0.000	0.000	0.000	0.000
SVO.RC.M	0.000	0.006	0.029	0.029	0.031
SVO.SC.M	0.001	0.001	0.004	0.004	0.005
SOC.RC.M	0.000	0.000	0.004	0.004	0.004
HZO.RC.M	-	-	-	-	0.000
HZO.RC.L	-	-	-	-	0.002
HZO.SC.M	0.000	0.000	0.000	0.000	0.000
HZO.SC.L	-	-	-	-	0.000
HCT.SC.M	0.000	0.000	0.000	0.000	0.000
HCT.SC.L	0.000	0.001	0.001	0.001	0.001
HCT.SC.I	0.000	0.000	0.000	0.000	0.001
HCS.SC.M	0.000	0.000	0.000	0.001	0.003
HCS.SC.L	0.000	0.000	0.000	0.000	0.001
PD.SC.M	0.010	0.010	0.021	0.032	0.037

[89] EPCA requires DOE to review its standards at least once every 6 years (42 U.S.C. 6295(m)(1), 6316(e)), and requires, for certain products, a 3-year period after any new standard is promulgated before compliance is required, except that in no case may any new standards be required within 6 years of the compliance date of the previous standards. (42 U.S.C. 6295(m)(4), 6316(e)).While adding a 6-year review to the 3-year compliance period sums to 9 years, DOE notes that it may undertake reviews at any time within the 6-year period, and that the 3 year compliance date may be extended to 5 years. A 9-year analysis period may not be appropriate given the variability that occurs in the timing of standards reviews and the fact that, for some consumer products, the period following establishment of a new or amended standard before which compliance is required is 5 years rather than 3 years.

TABLE V.42—CUMULATIVE NATIONAL PRIMARY ENERGY SAVINGS FOR 9-YEAR ANALYSIS PERIOD—Continued

[Equipment purchased in 2017–2025]

Equipment class	quads*				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
SOC.SC.M	0.000	0.000	0.000	0.000	0.000
Net NES	0.048	0.085	0.185	0.202	0.258

'-' represents zero energy savings, since TSLs 1 through 4 for the equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.

* A value of 0.000 means NES values are less than 0.0005 quads.

TABLE V.43 CUMULATIVE FULL FUEL CYCLE NATIONAL ENERGY SAVINGS FOR 9-YEAR ANALYSIS PERIOD

[Equipment purchased in 2017–2025]

Equipment class	quads*				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.001	0.009	0.050	0.051	0.054
VOP.RC.L	0.000	0.001	0.001	0.001	0.002
VOP.SC.M	0.000	0.001	0.004	0.004	0.004
VCT.RC.M	0.000	0.001	0.002	0.002	0.002
VCT.RC.L	0.013	0.015	0.016	0.016	0.025
VCT.SC.M	0.002	0.012	0.015	0.017	0.019
VCT.SC.L	0.001	0.001	0.001	0.001	0.002
VCT.SC.I	0.000	0.001	0.001	0.001	0.001
VCS.SC.M	0.010	0.013	0.023	0.023	0.037
VCS.SC.L	0.009	0.013	0.014	0.016	0.030
VCS.SC.I	0.000	0.000	0.000	0.000	0.000
SVO.RC.M	0.000	0.006	0.029	0.030	0.031
SVO.SC.M	0.001	0.001	0.004	0.005	0.005
SOC.RC.M	0.000	0.000	0.004	0.004	0.004
HZO.RC.M	-	-	-	-	0.000
HZO.RC.L	-	-	-	-	0.002
HZO.SC.M	0.000	0.000	0.000	0.000	0.000
HZO.SC.L	-	-	-	-	0.000
HCT.SC.M	0.000	0.000	0.000	0.000	0.000
HCT.SC.L	0.000	0.001	0.001	0.001	0.001
HCT.SC.I	0.000	0.000	0.000	0.000	0.001
HCS.SC.M	0.000	0.000	0.000	0.001	0.003
HCS.SC.L	0.000	0.000	0.000	0.000	0.001
PD.SC.M	0.010	0.010	0.022	0.033	0.038
SOC.SC.M	0.000	0.000	0.000	0.000	0.000
Net NES	0.048	0.087	0.189	0.205	0.262

'-' represents zero energy savings, since TSLs 1 through 4 for the equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.

* A value of 0.000 means NES values are less than, 0.0005 quads.

b. Net Present Value of Customer Costs and Benefits

DOE estimated the cumulative NPV to the Nation of the total savings for the customers that would result from potential standards at each TSL. In accordance with OMB guidelines on regulatory analysis (OMB Circular A–4, section E, September 17, 2003), DOE calculated NPV using both a 7-percent and a 3-percent real discount rate. The 7-percent rate is an estimate of the average before-tax rate of return on private capital in the U.S. economy, and reflects the returns on real estate and small business capital, including corporate capital. DOE used this discount rate to approximate the opportunity cost of capital in the private sector because recent OMB analysis has found the average rate of return on capital to be near this rate. In addition, DOE used the 3-percent rate to capture the potential effects of amended standards on private consumption. This rate represents the rate at which society discounts future consumption flows to their present value. It can be approximated by the real rate of return on long-term government debt (*i.e.,* yield on Treasury notes minus annual rate of change in the Consumer Price Index), which has averaged about 3 percent on a pre-tax basis for the last 30 years.

Table V.44 and Table V.45 show the customer NPV results for each of the TSLs DOE considered for commercial refrigeration equipment at both 7-percent and 3-percent discount rates. In each case, the impacts cover the expected lifetime of equipment purchased in 2017–2046. Detailed NPV results are presented in chapter 10 of the NOPR TSD.

The NPV results at a 7-percent discount rate were negative for all equipment classes at TSL 5. This is consistent with the results of LCC analysis results for TSL 5, which showed significant increase in LCC and significantly high PBPs that were greater than the average equipment lifetimes. Efficiency levels for TSL 4 were chosen to correspond to the highest efficiency level with a positive NPV at a 7-percent discount rate for each equipment class.

Similarly, the criteria for choice of efficiency levels for TSL 3, TSL 2, and TSL 1 were such that the NPV values for all the equipment classes show positive values. The criterion for TSL 3 was to select efficiency levels with the highest NPV at a 7-percent discount rate. Consequently, the total NPV for commercial refrigeration equipment is highest for TSL 3, with a value of $1.705 billion (2012$) at a 7-percent discount rate. TSL 4 shows the second highest total NPV, with a value of $1.606 billion (2012$) at a 7-percent discount rate. TSL 2 and TSL 1 have a total NPV lower than TSL 4, while TSL 5 has a negative total NPV of $6.735 billion (2012$).

TABLE V.44—NET PRESENT VALUE AT A 7-PERCENT DISCOUNT RATE

Equipment class	Billion 2012$ * **				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.016	0.099	0.466	0.461	(0.466)
VOP.RC.L	0.002	0.013	0.014	0.014	(0.062)
VOP.SC.M	0.003	0.005	0.027	0.025	(0.041)
VCT.RC.M	0.001	0.013	0.017	0.017	(0.060)
VCT.RC.L	0.141	0.155	0.161	0.161	(1.170)
VCT.SC.M	0.026	0.120	0.136	0.129	(0.340)
VCT.SC.L	0.014	0.014	0.015	0.015	(0.016)
VCT.SC.I	0.003	0.004	0.005	0.005	(0.042)
VCS.SC.M	0.113	0.135	0.153	0.153	(1.720)
VCS.SC.L	0.105	0.138	0.139	0.135	(1.084)
VCS.SC.I	0.000	0.001	0.001	0.001	(0.011)
SVO.RC.M	0.004	0.057	0.245	0.240	(0.231)
SVO.SC.M	0.008	0.012	0.029	0.027	(0.037)
SOC.RC.M	0.001	0.004	0.039	0.031	(0.056)
HZO.RC.M	-	-	-	-	(0.039)
HZO.RC.L	-	-	-	-	(0.229)
HZO.SC.M	0.000	0.000	0.000	0.000	(0.007)
HZO.SC.L	-	-	-	-	(0.006)
HCT.SC.M	0.000	0.001	0.001	0.001	(0.003)
HCT.SC.L	0.002	0.009	0.010	0.009	(0.016)
HCT.SC.I	0.000	0.001	0.001	0.001	(0.039)
HCS.SC.M	0.001	0.002	0.003	0.001	(0.166)
HCS.SC.L	0.002	0.002	0.003	0.003	(0.021)
PD.SC.M	0.119	0.119	0.237	0.176	(0.872)
SOC.SC.M	0.001	0.001	0.004	0.003	(0.003)
Sum Total	0.561	0.905	1.705	1.606	(6.735)

'-' represents zero energy savings, since TSLs 1 to 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.

* A value of $0.000 means NES values are less than 0.001 billion 2012$.

** Values in parentheses are negative values.

TABLE V.45—NET PRESENT VALUE AT A 3-PERCENT DISCOUNT RATE

Equipment class	Billion 2012$ * **				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.037	0.233	1.144	1.140	(0.549)
VOP.RC.L	0.005	0.030	0.032	0.032	(0.104)
VOP.SC.M	0.006	0.012	0.070	0.068	(0.053)
VCT.RC.M	0.001	0.031	0.041	0.041	(0.100)
VCT.RC.L	0.327	0.363	0.383	0.383	(2.017)
VCT.SC.M	0.059	0.283	0.331	0.326	(0.524)
VCT.SC.L	0.031	0.032	0.035	0.035	(0.020)
VCT.SC.I	0.007	0.011	0.012	0.012	(0.071)
VCS.SC.M	0.259	0.316	0.398	0.398	(2.976)
VCS.SC.L	0.239	0.323	0.329	0.327	(1.837)
VCS.SC.I	0.001	0.001	0.002	0.002	(0.018)
SVO.RC.M	0.008	0.137	0.615	0.608	(0.249)
SVO.SC.M	0.018	0.028	0.078	0.074	(0.043)
SOC.RC.M	0.003	0.010	0.093	0.079	(0.078)
HZO.RC.M	-	-	-	-	(0.071)
HZO.RC.L	-	-	-	-	(0.411)
HZO.SC.M	0.000	0.000	0.000	0.000	(0.013)
HZO.SC.L	-	-	-	-	(0.012)
HCT.SC.M	0.000	0.002	0.002	0.002	(0.004)
HCT.SC.L	0.004	0.022	0.022	0.022	(0.023)
HCT.SC.I	0.001	0.002	0.003	0.003	(0.066)
HCS.SC.M	0.003	0.005	0.007	0.006	(0.292)
HCS.SC.L	0.004	0.006	0.007	0.007	(0.034)
PD.SC.M	0.270	0.270	0.551	0.494	(1.406)

TABLE V.45—NET PRESENT VALUE AT A 3-PERCENT DISCOUNT RATE—Continued

Equipment class	Billion 2012$ * **				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
SOC.SC.M	0.002	0.002	0.009	0.008	(0.003)
Sum Total	1.285	2.118	4.165	4.067	(10.972)

'-' represents zero energy savings, since TSLs 1 to 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.
* A value of $0.000 means NES values are less than 0.001 billion 2012$.
** Values in parentheses are negative values.

The NPV results based on the aforementioned 9-year analysis period are presented in Table V.46 and Table V.47. The impacts are counted over the lifetime of products purchased in 2017–2025. As mentioned previously, this information is presented for informational purposes only and is not indicative of any change in DOE's analytical methodology or decision criteria.

TABLE V.46—NET PRESENT VALUE AT A 7-PERCENT DISCOUNT RATE FOR 9-YEAR ANALYSIS PERIOD

[Equipment purchased in 2017–2025]

Equipment class	billion 2012$ * ** †				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.008	0.039	0.154	0.150	(0.294)
VOP.RC.L	0.001	0.005	0.005	0.005	(0.032)
VOP.SC.M	0.001	0.002	0.008	0.007	(0.025)
VCT.RC.M	0.000	0.005	0.006	0.006	(0.031)
VCT.RC.L	0.054	0.059	0.060	0.060	(0.583)
VCT.SC.M	0.011	0.045	0.049	0.044	(0.182)
VCT.SC.L	0.005	0.005	0.006	0.006	(0.009)
VCT.SC.I	0.001	0.002	0.002	0.002	(0.021)
VCS.SC.M	0.043	0.051	0.049	0.049	(0.858)
VCS.SC.L	0.041	0.051	0.051	0.047	(0.548)
VCS.SC.I	0.000	0.000	0.000	0.000	(0.005)
SVO.RC.M	0.003	0.021	0.078	0.075	(0.151)
SVO.SC.M	0.003	0.004	0.008	0.007	(0.024)
SOC.RC.M	0.001	0.002	0.014	0.009	(0.032)
HZO.RC.M	-	-	-	-	(0.019)
HZO.RC.L	-	-	-	-	(0.111)
HZO.SC.M	0.000	0.000	0.000	(0.000)	(0.004)
HZO.SC.L	-	-	-	-	(0.003)
HCT.SC.M	0.000	0.000	0.000	0.000	(0.001)
HCT.SC.L	0.001	0.004	0.004	0.003	(0.009)
HCT.SC.I	0.000	0.000	0.000	0.000	(0.019)
HCS.SC.M	0.001	0.001	0.001	0.000	(0.082)
HCS.SC.L	0.001	0.001	0.001	0.001	(0.011)
PD.SC.M	0.047	0.047	0.090	0.049	(0.455)
SOC.SC.M	0.000	0.000	0.001	0.001	(0.002)
Sum Total	0.221	0.343	0.586	0.521	(3.509)

'-' represents zero energy savings, since TSLs 1 to 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.
* A value of $0.000 means NES values are less than 0.001 billion 2012$.
** Values in parentheses are negative values.
† The impacts were calculated over the lifetime of the equipment purchased in 2017–2025.

TABLE V.47—NET PRESENT VALUE AT A 3-PERCENT DISCOUNT RATE FOR 9-YEAR ANALYSIS PERIOD

[Equipment purchased in 2017–2025]

Equipment class	Billion 2012$ * ** †				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VOP.RC.M	0.013	0.063	0.267	0.263	(0.330)
VOP.RC.L	0.001	0.008	0.008	0.008	(0.040)
VOP.SC.M	0.002	0.003	0.015	0.014	(0.028)
VCT.RC.M	0.001	0.008	0.010	0.010	(0.039)
VCT.RC.L	0.088	0.096	0.099	0.099	(0.753)
VCT.SC.M	0.017	0.073	0.083	0.077	(0.222)
VCT.SC.L	0.008	0.009	0.009	0.009	(0.011)
VCT.SC.I	0.002	0.003	0.003	0.003	(0.027)

TABLE V.47—NET PRESENT VALUE AT A 3-PERCENT DISCOUNT RATE FOR 9-YEAR ANALYSIS PERIOD—Continued

[Equipment purchased in 2017–2025]

Equipment class	Billion 2012$ * ** †				
	TSL 1	TSL 2	TSL 3	TSL 4	TSL 5
VCS.SC.M	0.069	0.082	0.090	0.090	(1.111)
VCS.SC.L	0.064	0.083	0.084	0.080	(0.702)
VCS.SC.I	0.000	0.000	0.000	0.000	(0.007)
SVO.RC.M	0.004	0.036	0.138	0.135	(0.166)
SVO.SC.M	0.005	0.007	0.016	0.014	(0.027)
SOC.RC.M	0.001	0.003	0.023	0.017	(0.038)
HZO.RC.M	-	-	-	-	(0.025)
HZO.RC.L	-	-	-	-	(0.147)
HZO.SC.M	0.000	0.000	0.000	(0.000)	(0.005)
HZO.SC.L	-	-	-	-	(0.004)
HCT.SC.M	0.000	0.000	0.000	0.000	(0.002)
HCT.SC.L	0.001	0.006	0.006	0.006	(0.011)
HCT.SC.I	0.000	0.000	0.001	0.001	(0.025)
HCS.SC.M	0.001	0.001	0.002	0.001	(0.107)
HCS.SC.L	0.001	0.001	0.002	0.002	(0.014)
PD.SC.M	0.074	0.074	0.145	0.102	(0.568)
SOC.SC.M	0.001	0.001	0.002	0.002	(0.002)
Sum Total	0.352	0.558	1.003	0.934	(4.410)

'-' represents zero energy savings, since TSLs 1 to 4 for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L are associated with the baseline efficiency level.

* A value of $0.000 means NES values are less than 0.001 billion 2012$.

** Values in parentheses are negative values.

† The impacts were calculated over the lifetime of the equipment purchased in 2017–2025.

c. Employment Impacts

In addition to the direct impacts on manufacturing employment discussed in section V.B.2, DOE develops general estimates of the indirect employment impacts of proposed standards on the economy. As discussed above, DOE expects energy amended conservation standards for commercial refrigeration equipment to reduce energy bills for commercial customers, and the resulting net savings to be redirected to other forms of economic activity. DOE also realizes that these shifts in spending and economic activity by commercial refrigeration equipment owners could affect the demand for labor. Thus, indirect employment impacts may result from expenditures shifting between goods (the substitution effect) and changes in income and overall expenditure levels (the income effect) that occur due to the imposition of amended standards. These impacts may affect a variety of businesses not directly involved in the decision to make, operate, or pay the utility bills for commercial refrigeration equipment. To estimate these indirect economic effects, DOE used an input/output model of the U.S. economy using U.S. Department of Commerce, Bureau of Economic Analysis (BEA) and BLS data (as described in section IV.L of this notice; see chapter 16 of the NOPR TSD for more details).

Customers who purchase more-efficient equipment pay lower amounts towards utility bills, which results in job losses in the electric utilities sector. However, in the input/output model, the dollars saved on utility bills are re-invested in economic sectors that create more jobs than are lost in the electric utilities sector. Thus, the proposed amended energy conservation standards for commercial refrigeration equipment are likely to slightly increase the net demand for labor in the economy. However, the net increase in jobs might be offset by other, unanticipated effects on employment. Neither the BLS data nor the input/output model used by DOE includes the quality of jobs. As shown in Table V.48, DOE estimates that net indirect employment impacts from a proposed commercial refrigeration equipment amended standard are small relative to the national economy.

TABLE V.48—NET SHORT-TERM CHANGE IN EMPLOYMENT*

Trial standard level	2017	2021
1	35 to 38	198 to 201
2	53 to 61	345 to 354
3	74 to 108	719 to 749
4	60 to 105	760 to 801
5	(728) to (363)	130 to 504

* Values in parentheses are negative values.

4. Impact on Utility or Performance of Equipment

In performing the engineering analysis, DOE considers design options that would not lessen the utility or performance of the individual classes of equipment. (42 U.S.C. 6295(o)(2)(B)(i)(IV) and 6316(e)(1)) As presented in the screening analysis (chapter 4 of the NOPR TSD), DOE eliminates from consideration any design options that reduce the utility of the equipment. For this notice, DOE concluded that none of the efficiency levels proposed for commercial refrigeration equipment reduce the utility or performance of the equipment.

5. Impact of Any Lessening of Competition

EPCA directs DOE to consider any lessening of competition likely to result from amended standards. It directs the Attorney General to determine in writing the impact, if any, of any lessening of competition likely to result from a proposed standard. (42 U.S.C. 6295(o)(2)(B)(i)(V) and 6316(e)(1)) To assist the Attorney General in making such a determination, DOE provided the Department of Justice (DOJ) with copies of this notice and the TSD for review. During MIA interviews, domestic manufacturers indicated that foreign manufacturers have begun to enter the commercial refrigeration equipment industry, but not in significant numbers. Manufacturers also stated that

consolidation has occurred among commercial refrigeration equipment manufacturers in recent years. Interviewed manufacturers believe that these trends may continue in this market even in the absence of amended standards.

DOE does not believe that amended standards would result in domestic firms moving their production facilities outside the United States. The majority of commercial refrigeration equipment is manufactured in the United States and, during interviews, manufacturers in general indicated they would modify their existing facilities to comply with amended energy conservation standards.

6. Need of the Nation to Conserve Energy

An improvement in the energy efficiency of the equipment subject to today's NOPR is likely to improve the security of the Nation's energy system by reducing overall demand for energy. Reduced electricity demand may also improve the reliability of the electricity system. Reductions in national electric generating capacity estimated for each considered TSL are reported in chapter 14 of the NOPR TSD.

Energy savings from amended standards for commercial refrigeration equipment could also produce environmental benefits in the form of reduced emissions of air pollutants and GHGs associated with electricity production. Table V.49 provides DOE's estimate of cumulative emissions reductions projected to result from the TSLs considered in this rule. The table includes both power sector emissions and upstream emissions. The upstream emissions were calculated using the multipliers discussed in section IV.N. DOE reports annual CO_2, NO_X, SO_2, NO_2, CH_4 and Hg emissions reductions for each TSL in chapter 15 of the NOPR TSD. As discussed in Section IV.N DOE also did not include NO_X emission reduction from power plants in States subject to CAIR because an amended energy conservation standard would not affect the overall level of NO_X emissions in those States due to the emission caps mandated by CAIR.

TABLE V.49—CUMULATIVE EMISSIONS REDUCTION ESTIMATED FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS FOR EQUIPMENT PURCHASED IN 2017–2046

	TSL				
	1	2	3	4	5
Primary Emissions					
CO_2 *(million metric tons)*	12.22	21.83	47.55	51.77	66.05
NO_X *(thousand tons)*	9.05	16.18	35.23	38.36	48.93
Hg *(tons)*	0.03	0.05	0.10	0.11	0.14
N_2O *(thousand tons)*	0.26	0.47	1.02	1.11	1.42
CH_4 *(thousand tons)*	1.53	2.73	5.95	6.48	8.27
SO_2 *(thousand tons)*	16.39	29.28	63.78	69.43	88.58
Upstream Emissions					
CO_2 *(million metric tons)*	0.73	1.31	2.85	3.10	3.96
NO_X *(thousand tons)*	10.08	18.01	39.23	42.71	54.49
Hg *(tons)*	0.000	0.001	0.002	0.002	0.002
N_2O *(thousand tons)*	0.01	0.01	0.03	0.03	0.04
CH_4 *(thousand tons)*	61.23	109.39	238.27	259.41	330.92
SO_2 *(thousand tons)*	0.16	0.28	0.61	0.67	0.85
Total Emissions					
CO_2 *(million metric tons)*	12.95	23.14	50.41	54.88	70.01
NO_X *(thousand tons)*	19.14	34.19	74.46	81.07	103.42
Hg *(tons)*	0.03	0.05	0.10	0.11	0.14
N_2O *(thousand tons)*	0.27	0.48	1.05	1.15	1.46
CH_4 *(thousand tons)*	62.76	112.13	244.22	265.89	339.19
SO_2 *(thousand tons)*	16.55	29.56	64.39	70.10	89.43

As part of the analysis for this NOPR, DOE estimated monetary benefits likely to result from the reduced emissions of CO_2 and NO_X that DOE estimated for each of the TSLs considered. As discussed in section IV.O for CO_2, DOE used values for the SCC developed by an interagency process. The interagency group selected four sets of SCC values for use in regulatory analyses. Three sets are based on the average SCC from three integrated assessment models, at discount rates of 2.5 percent, 3 percent, and 5 percent. The fourth set, which represents the 95th-percentile SCC estimate across all three models at a 3-percent discount rate, is included to represent higher-than-expected impacts from temperature change further out in the tails of the SCC distribution. The four SCC values for CO_2 emissions reductions in 2015, expressed in 2012$, are $12.9/ton, $40.8/ton, $62.2/ton, and $117.0/ton. These values for later years are higher due to increasing emissions-related costs as the magnitude of projected climate change increase.

Table V.50 presents the global value of CO_2 emissions reductions at each TSL. DOE calculated domestic values as a range from 7 percent to 23 percent of the global values, and these results are presented in chapter 14 of the NOPR TSD.

TABLE V.50—GLOBAL PRESENT VALUE OF CO_2 EMISSIONS REDUCTION FOR POTENTIAL STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT

TSL	SCC Scenario*			
	5% Discount rate, average	3% Discount rate, average	2.5% Discount rate, average	3% Discount rate, 95th percentile
	million 2012$			
Primary Emissions				
1	68.6	335.1	546.1	1,013.7
2	122.6	598.7	975.6	1,811.1
3	266.9	1,304.1	2,124.9	3,944.8
4	290.6	1,419.8	2,313.4	4,294.8
5	370.7	1,811.2	2,951.2	5,478.8
Upstream Emissions				
1	4.0	20.0	32.6	60.6
2	7.2	35.7	58.3	108.3
3	15.8	77.8	126.9	236.0
4	17.1	84.7	138.1	256.9
5	21.9	108.1	176.2	327.7
Total Emissions				
1	72.6	355.1	578.7	1,074.4
2	129.8	634.4	1,033.8	1,919.5
3	282.7	1,381.9	2,251.8	4,180.7
4	307.8	1,504.5	2,451.6	4,551.7
5	392.6	1,919.2	3,127.4	5,806.5

* For each of the four cases, the corresponding SCC value for emissions in 2015 is $12.9, $40.8, $62.2 and $117.0 per metric ton (2012$).

DOE is well aware that scientific and economic knowledge about the contribution of CO_2 and other GHG emissions to changes in the future global climate and the potential resulting damages to the world economy continues to evolve rapidly. Thus, any value placed in this NOPR on reducing CO_2 emissions is subject to change. DOE, together with other Federal agencies, will continue to review various methodologies for estimating the monetary value of reductions in CO_2 and other GHG emissions. This ongoing review will consider the comments on this subject that are part of the public record for this NOPR and other rulemakings, as well as other methodological assumptions and issues. However, consistent with DOE's legal obligations, and taking into account the uncertainty involved with this particular issue, DOE has included in this NOPR the most recent values and analyses resulting from the ongoing interagency review process.

DOE also estimated a range for the cumulative monetary value of the economic benefits associated with NO_X emission reductions anticipated to result from amended commercial refrigeration equipment standards. Estimated monetary benefits for CO_2 and NO_X emission reductions are detailed in chapter 14 of the NOPR TSD. Table V.51 presents the present value of cumulative NO_X emissions reductions for each TSL calculated using the average dollar-per-ton values and 7-percent and 3-percent discount rates.

TABLE V.51—PRESENT VALUE OF NO_X EMISSIONS REDUCTION FOR POTENTIAL STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT

TSL	3% Discount rate	7% Discount rate
	million 2012$	
Primary Emissions		
1	12.0	5.6
2	21.4	10.0
3	46.6	21.7
4	50.7	23.6
5	64.7	30.1
Upstream Emissions		
1	13.4	6.2
2	24.0	11.0
3	52.3	24.0
4	56.9	26.1
5	72.6	33.3

TABLE V.51—PRESENT VALUE OF NO_X EMISSIONS REDUCTION FOR POTENTIAL STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT—Continued

TSL	3% Discount rate	7% Discount rate
Total Emissions		
1	25.4	11.7
2	45.4	21.0
3	98.9	45.7
4	107.6	49.8
5	137.3	63.5

The NPV of the monetized benefits associated with emission reductions can be viewed as a complement to the NPV of the customer savings calculated for each TSL considered in this NOPR. Table V.52 presents the NPV values that result from adding the estimates of the potential economic benefits resulting from reduced CO_2 and NO_X emissions in each of four valuation scenarios to the NPV of consumer savings calculated for each TSL considered in this rulemaking, at both a 7-percent and a 3-percent discount rate. The CO_2 values used in the table correspond to the four scenarios for the valuation of CO_2 emission reductions discussed above.

TABLE V.52—COMMERCIAL REFRIGERATION EQUIPMENT TSLS: NET PRESENT VALUE OF CONSUMER SAVINGS COMBINED WITH NET PRESENT VALUE OF MONETIZED BENEFITS FROM CO_2 AND NO_X EMISSIONS REDUCTIONS

TSL	Consumer NPV at 3% discount rate added with:			
	SCC Value of $12.9/ metric ton CO_2* and low value for NO_X**	SCC Value of $40.8/ metric ton CO_2* and medium value for NO_X**	SCC Value of $62.2/ metric ton CO_2* and medium value for NO_X**	SCC Value of $117.0/ metric ton CO_2* and high value for NO_X**
	billion 2012$			
1	*1.362*	*1.665*	*1.889*	*2.406*
2	*2.256*	*2.798*	*3.197*	*4.120*
3	*4.466*	*5.646*	*6.516*	*8.526*
4	*4.394*	*5.679*	*6.626*	*8.815*
5	*(10.555)*	*(8.916)*	*(7.708)*	*(4.916)*
TSL	Consumer NPV at 7% Discount Rate added with:			
	SCC Value of $12.9/ metric ton CO_2* and Low Value for NO_X**	SCC Value of $40.8/ metric ton CO_2* and Medium Value for NO_X**	SCC Value of $62.2/ metric ton CO_2* and Medium Value for NO_X**	SCC Value of $117.0/ metric ton CO_2* and High Value for NO_X**
	billion 2012$			
1	*0.636*	*0.928*	*1.151*	*1.657*
2	*1.038*	*1.560*	*1.959*	*2.862*
3	*1.996*	*3.133*	*4.002*	*5.969*
4	*1.922*	*3.160*	*4.107*	*6.248*
5	*(6.331)*	*(4.752)*	*(3.544)*	*(0.813)*

Note: Parentheses indicate negative values.*

*These label values represent the global SCC in 2015, in 2012$. The present values have been calculated with scenario-consistent discount rates.

**Low Value corresponds to $468 per ton of NO_X emissions. Medium Value corresponds to $2,639 per ton of NO_X emissions. High Value corresponds to $4,809 per ton of NO_X emissions.

Although adding the value of customer savings to the values of emission reductions provides a valuable perspective, two issues should be considered. First, the national operating cost savings are domestic U.S. customer monetary savings that occur as a result of market transactions, while the value of CO_2 reductions is based on a global value. Second, the assessments of operating cost savings and the SCC are performed with different methods that use quite different time frames for analysis. The national operating cost savings is measured for the lifetime of products shipped in 2017–2046. The SCC values, on the other hand, reflect the present value of future climate-related impacts resulting from the emission of one metric ton of CO_2 in each year. These impacts continue well beyond 2100.

7. Other Factors

EPCA allows the Secretary, in determining whether a proposed standard is economically justified, to consider any other factors that the Secretary deems to be relevant. (42 U.S.C. 6295(o)(2)(B)(i)(VII) and 6316(e)(1)) DOE considered LCC impacts on identifiable groups of customers, such as customers of different business types, who may be disproportionately affected by any amended national energy conservation standard level. DOE also considered the reduction in generation capacity that could result from the imposition of any amended national energy conservation standard level.

DOE carried out a RIA, as described in section IV.P, to study the impact of certain non-regulatory alternatives that may encourage customers to purchase

higher efficiency equipment and, thus, achieve NES. The two major alternatives identified by DOE are customer rebates and customer tax credits. DOE surveyed the various rebate programs available in the United States. Typically, rebates are offered for grocery stores that retrofit their display cases with energy efficiency components such as LED lamps, electronically commutated motor (ECM) fan motors, night curtains, and higher efficiency doors. Based on comparison with the incremental MSP values obtained from the engineering analysis, DOE chose to model a scenario in which customers are offered, as rebates, 60 percent of the incremental equipment installed cost. The value of 60 percent is very high compared to most rebate programs and was chosen to represent the maximum possible rebate scenario.

For the tax credits scenario, DOE did not find a suitable program by which to model the scenario. Therefore, DOE used a 5-percent/10-percent tax credit scenario. DOE first calculated the MSP increments over baseline for each TSL for each equipment class. For TSLs that had an increase in MSP between 10 and 15 percent over the baseline MSP, DOE applied a 5-percent tax credit, where the amount of tax credit was equal to 5 percent of the MSP of the higher efficiency equipment. For TSLs that had increase of 15 percent or more in MSP values over the baseline MSP, DOE applied a 10-percent tax credit. This type of tax credit scenario is an attempt to approximate a model in which the tax credits are proportional to the magnitude of efficiency improvement with the implicit assumption that the magnitude of the increase in MSP is proportional to the magnitude of increase in energy efficiency.

Table V.53 and Table V.54 show the NES and NPV, respectively, for the non-regulatory alternatives analyzed. For comparison, the table includes the results of the NES and NPV for TSL 4, the proposed energy conservation standard. Energy savings are expressed in quads in terms of primary or source energy, which includes generation and transmission losses from electricity utility sector.

TABLE V.53—CUMULATIVE PRIMARY ENERGY SAVINGS OF NON-REGULATORY ALTERNATIVES COMPARED TO THE PROPOSED STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT *

Policy Alternatives	Cumulative NES Quads
No new regulatory action	0
Customer tax credits	0.151
Customer rebates	0.198
Voluntary energy efficiency targets**	NA
Early replacement**	NA
Proposed standards (TSL 4)	0.985

* Chapter 17 of the TSD describes the inputs and their respective sources for the RIA.
** Analysis of two non-regulatory alternatives: voluntary energy efficiency targets and early replacement were not performed as DOE expected minimal potential benefits as discussed in Chapter 17 of the TSD.

TABLE V.54—CUMULATIVE NPV OF NON-REGULATORY ALTERNATIVES COMPARED TO THE PROPOSED STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT

Policy Alternatives	Cumulative Net Present Value billion 2012$	
	7% Discount	3% Discount
No new regulatory action	0	0
Customer tax credits	0.257	0.489
Customer rebates	0.055	0.122
Voluntary energy efficiency targets*	NA	NA
Early replacement*	NA	NA
Proposed standards (TSL 4)	1.606	4.067

* Analysis of two non-regulatory alternatives: voluntary energy efficiency targets and early replacement, were not performed as DOE expected minimal potential benefits as discussed in Chapter 17 of the TSD.

As shown above, none of the policy alternatives DOE examined would achieve close to the amount of energy or monetary savings that could be realized under the proposed amended standard. Also, implementing either tax credits or customer rebates would incur initial and/or administrative costs that were not considered in this analysis.

C. Proposed Standard

DOE recognizes that when it considers proposed standards, it is subject to the EPCA requirement that any new or amended energy conservation standard for any type (or class) of covered product be designed to achieve the maximum improvement in energy efficiency that the Secretary determines is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A) and 6316(e)(1)) In determining whether a proposed standard is economically justified, the Secretary must determine whether the benefits of the standard exceed its burdens to the greatest extent practicable, in light of the seven statutory factors discussed previously. (42 U.S.C. 6295(o)(2)(B)(i) and 6316(e)(1)) The new or amended standard must also result in a significant conservation of energy. (42 U.S.C. 6295(o)(3)(B) and 6316(e)(1))

DOE considered the impacts of potential standards at each TSL, beginning with the maximum technologically feasible level, to determine whether that level met the evaluation criteria. If the max-tech level was not justified, DOE then considered the next most efficient level and undertook the same evaluation until it reached the highest efficiency level that is both technologically feasible and economically justified and saves a significant amount of energy.

DOE discusses the benefits and/or burdens of each TSL in the following sections. DOE bases its discussion on quantitative analytical results for each TSL, including NES, NPV (discounted at 7 and 3 percent), emission reductions, INPV, LCC, and customers' installed price increases. Beyond the quantitative results, DOE also considers other burdens and benefits that affect economic justification, including how technological feasibility, manufacturer costs, and impacts on competition may affect the economic results presented.

Table V.55, Table V.56, Table V.57 and Table V.58 present a summary of the results of DOE's quantitative analysis for each TSL. In addition to the quantitative results presented in the tables, DOE also considers other burdens and benefits that affect

economic justification of certain customer subgroups that are disproportionately affected by the proposed standards. Section V.B.7 presents the estimated impacts of each TSL for these subgroups.

TABLE V.55—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: NATIONAL IMPACTS *

Category	TSL 1	TSL 2	TSL 3	TSL 4	TSL5
Cumulative National Energy Savings 2017 through 2060 quads					
Undiscounted values.	0.236	0.422	0.920	1.001	1.278
Cumulative NPV of Customer Benefits 2017 through 2060 2012$ billion					
3% discount rate	$1.285	$2.118	$4.165	$4.067	($10.972)
7% discount rate	$0.561	$0.905	$1.705	$1.606	($6.735)
Industry Impacts					
Change in Industry NPV (2012$ million).	(3.6) to (6.8)	(15.2) to (26.4)	(26.3) to (59.2)	(45.9) to (92.6)	(25.5) to (516.0)
Change in Industry NPV (%).	(0.58) to (0.31)	(2.27) to (1.30)	(5.09) to (2.26)	(7.97) to (3.95)	(44.41) to (2.20)
Cumulative Emissions Reductions 2017 through 2060					
CO_2 (MMt)**	12.95	23.14	50.41	54.88	70.01
NO_X (kt)**	19.14	34.19	74.46	81.07	103.42
Hg (t)**	0.03	0.05	0.10	0.11	0.14
N_2O (kt)**	0.27	0.48	1.05	1.15	1.46
N_2O (kt CO_2eq)**	80.56	143.92	313.48	341.29	435.39
CH_4 (*kt*)**	62.76	112.13	244.22	265.89	339.19
CH_4 (*kt* CO_2eq) **	1,568.96	2,803.13	6,105.43	6,647.15	8,479.71
SO_2 (kt) **	16.55	29.56	64.39	70.10	89.43
Monetary Value of Cumulative Emissions Reductions 2017 through 2060 †					
CO_2 (2012$ million).	73 to 1,074	130 to 1,919	283 to 4,181	308 to 4,552	393 to 5,807
NO_X—3% discount rate (2012$ million).	4.5 to 46.3	8.1 to 82.7	17.5 to 180.2	19.1 to 196.2	24.4 to 250.2
NO_X—7% discount rate (2012$ million).	2.1 to 21.4	3.7 to 38.2	8.1 to 83.3	8.8 to 90.7	11.3 to 115.7
Employment Impacts					
Net Change in Indirect Domestic Jobs by 2021.	198 to 201	345 to 354	719 to 749	760 to 801	130 to 504

* Values in parentheses are negative values.
** "MMt" stands for million metric tons; "kt" stands for kilotons; "t" stands for tons. CO_2eq is the quantity of CO_2 that would have the same global warming potential (GWP)
† Range of the economic value of CO_2 reductions is based on estimates of the global benefit of reduced CO_2 emissions.

TABLE V.56—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: MEAN LCC SAVINGS

Equipment class	TSL 1	TSL 2	TSL 3	TSL 4	TSL5
Mean LCC Savings* 2012$					
VOP.RC.M	$235.92	$743.00	$1,788.85	$1,493.72	($1,668.79)
VOP.RC.L	537.27	1,516.59	1,129.51	1,129.51	(3,692.90)
VOP.SC.M	170.78	227.17	814.91	691.27	(376.52)
VCT.RC.M	175.23	1,864.44	1,758.73	1,108.13	(2,508.61)
VCT.RC.L	1,357.25	1,004.72	797.91	797.91	(3,624.20)
VCT.SC.M	566.18	1,363.60	1,122.14	641.05	(595.52)
VCT.SC.L	4,186.06	2,522.67	1,984.45	1,342.84	(343.16)
VCT.SC.I	572.05	486.28	431.88	431.88	(1,591.87)
VCS.SC.M	278.84	162.88	131.80	131.80	(1,042.03)
VCS.SC.L	524.52	329.33	267.81	220.83	(1,274.03)

TABLE V.56—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: MEAN LCC SAVINGS—Continued

Equipment class	TSL 1	TSL 2	TSL 3	TSL 4	TSL5
VCS.SC.I	236.77	176.83	152.69	152.69	(1,818.87)
SVO.RC.M	73.77	551.98	1,216.77	1,008.46	(1,015.16)
SVO.SC.M	324.33	334.89	587.90	491.99	(201.61)
SOC.RC.M	118.36	226.26	997.89	494.51	(982.21)
HZO.RC.M**	0.00	0.00	0.00	0.00	(1,271.24)
HZO.RC.L**	0.00	0.00	0.00	0.00	(2,134.96)
HZO.SC.M	8.85	8.85	48.60	28.78	(821.57)
HZO.SC.L**	0.00	0.00	0.00	0.00	(473.71)
HCT.SC.M	106.59	359.48	307.26	253.60	(293.54)
HCT.SC.L	217.19	790.53	571.07	368.92	(354.75)
HCT.SC.I	21.83	34.69	42.48	42.48	(811.31)
HCS.SC.M	23.07	19.18	16.66	8.68	(422.79)
HCS.SC.L	74.69	80.97	80.72	80.72	(400.63)
PD.SC.M	1,009.53	1,009.53	933.59	310.43	(637.94)
SOC.SC.M	646.15	466.47	1,241.60	739.75	(735.33)

* Values in parentheses are negative values.
** "NA" means "not applicable," because for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L, TSLs 1 through 4 are associated with the baseline efficiency level.

TABLE V.57—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: MEDIAN PAYBACK PERIOD

Equipment class	TSL 1	TSL 2	TSL 3	TSL 4	TSL5
	Median Payback Period years				
VOP.RC.M	1.73	1.77	3.77	3.91	11.76
VOP.RC.L	1.11	2.03	2.22	2.22	18.30
VOP.SC.M	1.61	2.17	4.12	4.39	11.37
VCT.RC.M	1.23	2.42	2.43	2.70	13.09
VCT.RC.L	1.30	1.51	1.64	1.64	15.75
VCT.SC.M	0.86	1.73	2.21	2.54	8.13
VCT.SC.L	0.58	0.61	0.83	0.96	3.65
VCT.SC.I	0.86	1.74	1.97	1.97	13.21
VCS.SC.M	0.78	0.98	1.75	1.75	14.11
VCS.SC.L	0.55	0.91	1.00	1.15	10.54
VCS.SC.I	0.80	2.07	2.42	2.42	27.19
SVO.RC.M	1.31	2.64	4.34	4.50	11.60
SVO.SC.M	1.97	2.06	4.43	4.75	10.36
SOC.RC.M	1.25	1.44	3.31	4.41	11.88
HZO.RC.M*	0.00	0.00	0.00	0.00	161.23
HZO.RC.L*	0.00	0.00	0.00	0.00	83.78
HZO.SC.M	1.89	1.89	2.42	6.40	55.78
HZO.SC.L*	0.00	0.00	0.00	0.00	73.62
HCT.SC.M	0.69	2.24	2.42	3.08	12.26
HCT.SC.L	0.53	1.00	1.05	1.47	7.15
HCT.SC.I	0.88	2.39	4.28	4.28	27.99
HCS.SC.M	0.50	1.64	2.54	4.28	34.05
HCS.SC.L	0.86	1.36	2.57	2.57	14.98
PD.SC.M	0.53	0.53	1.10	2.27	7.61
SOC.SC.M	1.12	1.24	2.35	2.99	7.42

* "NA" means "not applicable," because for equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L, TSLs 1 through 4 are associated with the baseline efficiency level.

TABLE V.58—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: DISTRIBUTION OF CUSTOMER LCC IMPACTS

Category	TSL 1*	TSL 2*	TSL 3*	TSL 4*	TSL 5*
VOP.RC.M:					
Net Cost (%)	0	0	0	11	90
No Impact (%)	76	52	28	15	2
Net Benefit (%)	24	48	72	74	8
VOP.RC.L:					
Net Cost (%)	0	0	0	0	98
No Impact (%)	74	48	25	25	2
Net Benefit (%)	26	52	75	75	0
VOP.SC.M:					
Net Cost (%)	0	0	0	11	77

TABLE V.58—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: DISTRIBUTION OF CUSTOMER LCC IMPACTS—Continued

Category	TSL 1*	TSL 2*	TSL 3*	TSL 4*	TSL 5*
No Impact (%)	62	43	25	14	3
Net Benefit (%)	38	57	75	75	20
VCT.RC.M:					
Net Cost (%)	0	0	0	26	94
No Impact (%)	81	62	46	16	2
Net Benefit (%)	19	38	54	57	4
VCT.RC.L:					
Net Cost (%)	0	0	0	0	97
No Impact (%)	60	40	21	21	2
Net Benefit (%)	40	60	79	79	1
VCT.SC.M:					
Net Cost (%)	0	0	0	27	74
No Impact (%)	83	66	51	13	2
Net Benefit (%)	17	34	49	60	24
VCT.SC.L:					
Net Cost (%)	0	0	0	7	74
No Impact (%)	76	60	44	15	2
Net Benefit (%)	24	40	56	78	24
VCT.SC.I:					
Net Cost (%)	0	1	1	1	95
No Impact (%)	65	32	16	16	1
Net Benefit (%)	35	68	83	83	3
VCS.SC.M:					
Net Cost (%)	0	0	7	7	99
No Impact (%)	72	42	13	13	1
Net Benefit (%)	28	58	80	80	0
VCS.SC.L:					
Net Cost (%)	0	0	5	20	97
No Impact (%)	73	42	28	14	1
Net Benefit (%)	27	58	68	66	2
VCS.SC.I:					
Net Cost (%)	0	0	3	3	99
No Impact (%)	67	32	16	16	1
Net Benefit (%)	33	68	81	81	0
SVO.RC.M:					
Net Cost (%)	0	0	0	13	85
No Impact (%)	75	51	29	16	3
Net Benefit (%)	25	49	71	72	12
SVO.SC.M:					
Net Cost (%)	0	0	0	12	69
No Impact (%)	61	43	25	14	4
Net Benefit (%)	39	57	75	75	27
SOC.RC.M:					
Net Cost (%)	0	0	0	29	89
No Impact (%)	82	64	47	18	5
Net Benefit (%)	18	36	53	53	6
HZO.RC.M:**					
Net Cost (%)	NA	NA	NA	NA	78
No Impact (%)	NA	NA	NA	NA	22
Net Benefit (%)	NA	NA	NA	NA	0
HZO.RC.L:**					
Net Cost (%)	NA	NA	NA	NA	86
No Impact (%)	NA	NA	NA	NA	14
Net Benefit (%)	NA	NA	NA	NA	0
HZO.SC.M:					
Net Cost (%)	0	0	0	19	98
No Impact (%)	75	75	49	24	2
Net Benefit (%)	25	25	51	57	0
HZO.SC.L:**					
Net Cost (%)	NA	NA	NA	NA	72
No Impact (%)	NA	NA	NA	NA	28
Net Benefit (%)	NA	NA	NA	NA	0
HCT.SC.M:					
Net Cost (%)	0	0	0	18	89
No Impact (%)	70	38	25	12	1
Net Benefit (%)	30	62	75	70	10
HCT.SC.L:					
Net Cost (%)	0	0	0	23	76
No Impact (%)	75	61	45	14	1
Net Benefit (%)	26	39	55	63	23
HCT.SC.I:					

TABLE V.58—SUMMARY OF RESULTS FOR COMMERCIAL REFRIGERATION EQUIPMENT TSLS: DISTRIBUTION OF CUSTOMER LCC IMPACTS—Continued

Category	TSL 1*	TSL 2*	TSL 3*	TSL 4*	TSL 5*
Net Cost (%)	0	0	2	2	99
No Impact (%)	74	49	23	23	1
Net Benefit (%)	26	51	75	75	0
HCS.SC.M:					
Net Cost (%)	0	0	1	29	98
No Impact (%)	83	65	48	31	2
Net Benefit (%)	17	35	51	40	0
HCS.SC.L:					
Net Cost (%)	0	0	2	2	98
No Impact (%)	50	33	16	16	2
Net Benefit (%)	50	67	82	82	0
PD.SC.M:					
Net Cost (%)	0	0	0	41	86
No Impact (%)	86	86	69	11	1
Net Benefit (%)	14	14	31	48	13
SOC.SC.M:					
Net Cost (%)	0	0	0	25	80
No Impact (%)	70	55	40	16	5
Net Benefit (%)	30	45	60	60	16

* Values have been rounded to the nearest integer. Therefore, some of the percentages may not add up to 100.
** "NA" means "not applicable"; because for equipment classes HZO.RC.M, HZO.RC.L and HZO.SC.L, TSLs 1 through 4 are associated with the baseline efficiency level.

DOE also notes that the economics literature provides a wide-ranging discussion of how consumers trade off upfront costs and energy savings in the absence of government intervention. Much of this literature attempts to explain why consumers appear to undervalue energy efficiency improvements. This undervaluation suggests that regulation that promotes energy efficiency can produce significant net private gains (as well as producing social gains by, for example, reducing pollution). There is evidence that consumers undervalue future energy savings as a result of (1) a lack of information; (2) a lack of sufficient salience of the long-term or aggregate benefits; (3) a lack of sufficient savings to warrant delaying or altering purchases (*e.g.,* an inefficient ventilation fan in a new building or the delayed replacement of a water pump); (4) excessive focus on the short term, in the form of inconsistent weighting of future energy cost savings relative to available returns on other investments; (5) computational or other difficulties associated with the evaluation of relevant tradeoffs; and (6) a divergence in incentives (*e.g.,* renter versus building owner, builder versus home buyer). Other literature indicates that with less than perfect foresight and a high degree of uncertainty about the future, consumers may trade off these types of investments at a higher than expected rate between current consumption and uncertain future energy cost savings.

While DOE is not prepared at present to provide a fuller quantifiable framework for estimating the benefits and costs of changes in consumer purchase decisions due to an amended energy conservation standard, DOE has posted a paper that discusses the issue of consumer welfare impacts of appliance energy efficiency standards, and potential enhancements to the methodology by which these impacts are defined and estimated in the regulatory process.[90] DOE is committed to developing a framework that can support empirical quantitative tools for improved assessment of the consumer welfare impacts of appliance standards. DOE welcomes comments on information and methods to better assess the potential impact of energy conservation standards on consumer choice and methods to quantify this impact in its regulatory analysis in future rulemakings.

TSL 5 corresponds to the max-tech level for all the equipment classes and offers the potential for the highest cumulative energy savings. The estimated energy savings from TSL 5 is 1.2784 quads of energy. DOE projects a net negative NPV for customers with estimated increased costs valued at $6.735 billion at a 7-percent discount rate. Estimated emissions reductions are 70.0 MMt of CO_2, and up to 103.4 kt of NO_X, and 89.4 kt of SO_2. DOE also projects a decrease in Hg emissions of up to 0.14 tons. The CO_2 emissions have a value of up to $5.8 billion and the NO_X emissions have a value of $115.7 million at a 7-percent discount rate.

For TSL 5 the mean LCC savings for all equipment classes are negative, implying an increase in LCC, with the increase ranging from $202 for the SVO.SC.M equipment class to $3,693 for the VOP.RC.L equipment class.

At TSL 5, manufacturers may expect diminished profitability due to large increases in product costs, capital investments in equipment and tooling, and expenditures related to engineering and testing. The projected change in INPV ranges from a decrease of $516.0 million to a decrease of $25.5 million based on DOE's manufacturer markup scenarios. The upper bound of -$25.5 million is considered an optimistic scenario for manufacturers because it assumes manufacturers can fully pass on substantial increases in equipment costs. DOE recognizes the risk of large negative impacts on industry if manufacturers' expectations concerning reduced profit margins are realized. TSL 5 could reduce commercial refrigeration equipment INPV by up to 44.41 percent if impacts reach the lower bound of the range.

After carefully considering the analyses results and weighing the benefits and burdens of TSL 5, DOE finds that the benefits to the Nation from TSL 5, in the form of energy savings and emissions reductions, including environmental and monetary benefits, are small compared to the

[90] Sanstad, A. *Notes on the Economics of Household Energy Consumption and Technology Choice.* 2010. Lawrence Berkeley National Laboratory, Berkeley, CA. *www1.eere.energy.gov/buildings/appliance_standards/pdfs/consumer_ee_theory.pdf.*

burdens, in the form of a decrease of $6.735 billion in customer NPV and a decrease of up to 44.41 percent in INPV. DOE concludes that the burdens of TSL 5 outweigh the benefits and, therefore, does not find TSL 5 to be economically justifiable. DOE is not proposing to adopt TSL 5 in this notice.

TSL 4 corresponds to the highest efficiency level, in each equipment class, with a positive NPV at a 7-percent discount rate. The estimated energy savings for equipment purchased in 2017–2046 is 1.001 quads of energy, an amount DOE deems significant. At TSL 4, DOE projects an increase in customer NPV of $1.606 billion at a 7-percent discount rate; estimated emissions reductions of 54.88 MMt of CO_2; up to 81.1 kt of NO_X, 0.11 in Hg and 70.1 kt of SO_2. The monetary value of these emissions was estimated to be up to $4.55 billion for CO_2 and up to $90.7 million for NO_X at a 7-percent discount rate.

At TSL 4, the mean LCC savings vary from $8.68 for HCS.SC.M to $1,493.72 for VOP.RC.M, which implies that on an average customers will experience a decrease in LCC. For equipment classes HZO.RC.M, HZO.RC.L, and HZO.SC.L, TSL 4 is associated with the baseline level because these equipment classes have only one efficiency level above baseline and each of those higher efficiency levels yields a negative NPV. Therefore, there are no efficiency levels that satisfy the criteria used for selection of TSLs 1 through 4. DOE is not proposing to amend the standards for these three equipment classes.

At TSL 4, the projected change in INPV ranges from a decrease of $92.6 million to a decrease of $45.9 million. At TSL 4, DOE recognizes the risk of negative impacts if manufacturers' expectations concerning reduced profit margins are realized. If the lower bound of the range of impacts is reached, as DOE expects, TSL 4 could result in a net loss of 7.97 percent in INPV for commercial refrigeration equipment manufacturers.

DOE contrasted the benefits and burdens of TSL 4 with those of TSL 3 because even though TSL 4 has higher energy savings than TSL 3, the customer NPV values at TSL 3 are higher than at TSL 4. The estimated energy savings at TSL 3 is 0.920 quads of energy, whereas at TSL 4 the energy savings are higher by about 9 percent at 1.001 quads. At TSL 3, DOE projects an increase in customer NPV of $1.705 billion at a 7-percent discount rate, whereas at TSL 4 the customer NPV is lower by about 6 percent at $1.606 billion, with the actual difference amounting to approximately $99 million. Estimated emissions reductions at TSL 3 are 50.41 MMt of CO_2 as opposed to 54.88 MMt at TSL 4, and up to 74.46 kt of NO_X at TSL 3 as compared to 81.07 kt at TSL 4. The monetary value of the CO_2 emissions reductions was estimated to be up to $4.18 billion at TSL 3 compared to $4.55 billion at TSL 4, and NO_X emission reductions at a 7-percent discount rate were valued at up to $83.3 million at TSL 3 compared to $90.7 million at TSL 4.

To facilitate a direct comparison between the benefits of TSL 3 versus those of TSL4, DOE evaluated the net social benefits of TSL 3 and TSL 4 by combining the customer NPV values with monetized emissions reductions. While Table V.55 provides a range of monetized values for CO_2 and NO_X emissions reductions, DOE calculated certain intermediate values here for the purpose of net benefits calculation. The monetized CO_2 emissions reduction values were calculated at $40.8 per ton in 2012$ and the monetized NO_X emissions reductions were calculated at an intermediate value of $2,639 per ton in 2012$. These monetized emissions reduction values were added to the customer NPV at a 7-percent discount rate to obtain a value of 3.133 billion at TSL 3. At TSL 4, the net benefit value of $3.160 billion is higher than that at TSL 3.

After careful consideration of the analyses results, weighing the benefits and burdens of TSL 4, and comparing them to those of TSL 3, DOE believes that setting the standards for commercial refrigeration equipment at TSL 4 represents the maximum improvement in energy efficiency that is technologically feasible and economically justified. TSL 4 is technologically feasible because the technologies required to achieve these levels already exist in the current market. TSL 4 is economically justified because the benefits to the Nation in the form of energy savings, customer NPV at 3 percent and at 7 percent, and emissions reductions outweigh the costs associated with reduced INPV.

Therefore, DOE has decided to propose the adoption of amended energy conservation standards for commercial refrigeration equipment at TSL 4. DOE specifically seeks comment on the magnitude of the estimated decline in INPV at TSL 4 compared to the baseline, and whether this impact could risk industry consolidation. DOE also specifically requests comment on whether DOE should adopt TSL 5, and in particular whether, compared to TSL 4, TSL 5's higher energy savings outweigh its lower NPV benefits and higher manufacturer impacts. DOE may reexamine this level depending on the nature of the information it receives during the comment period and adjust its final levels in response to that information.

VI. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

Section 1(b)(1) of Executive Order 12866, ''Regulatory Planning and Review,'' 58 FR 51735 (Oct. 4, 1993), requires each agency to identify the problem that it intends to address, including, where applicable, the failures of private markets or public institutions that warrant new agency action, as well as to assess the significance of that problem. The problems that today's standards address are as follows:

1. There is a lack of consumer information and/or information processing capability about energy efficiency opportunities in the commercial refrigeration equipment market.

2. There is asymmetric information (one party to a transaction has more and better information than the other) and/or high transactions costs (costs of gathering information and effecting exchanges of goods and services).

3. There are external benefits resulting from improved energy efficiency of commercial refrigeration equipment that are not captured by the users of such equipment. These benefits include externalities related to environmental protection and energy security that are not reflected in energy prices, such as reduced emissions of GHGs.

In addition, DOE has determined that today's regulatory action is an ''economically significant regulatory action'' under section 3(f)(1) of Executive Order 12866. Accordingly, section 6(a)(3) of the Executive Order requires that DOE prepare an RIA on today's rule and that OIRA in OMB review this rule. DOE presented to OIRA for review the draft rule and other documents prepared for this rulemaking, including the RIA, and has included these documents in the rulemaking record. The assessments prepared pursuant to Executive Order 12866 can be found in the TSD for this rulemaking.

DOE has also reviewed this regulation pursuant to Executive Order 13563, issued on January 18, 2011. 76 FR 3281 (Jan. 21, 2011). Executive Order 13563 is supplemental to and explicitly reaffirms the principles, structures, and definitions governing regulatory review established in Executive Order 12866. To the extent permitted by law, agencies

are required by Executive Order 13563 to: (1) Propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

DOE emphasizes as well that Executive Order 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, ORIA has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, DOE believes that today's NOPR is consistent with these principles, including the requirement that, to the extent permitted by law, benefits justify costs and that net benefits are maximized.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of a final regulatory flexibility analysis (FRFA) for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking'' 67 FR 53461 (Aug. 16, 2002), DOE published procedures and policies on February 19, 2003 to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's Web site (*http://energy.gov/gc/office-general-counsel*).

1. Description and Estimated Number of Small Entities Regulated

For the manufacturers of commercial refrigeration equipment, the SBA has set a size threshold, which defines those entities classified as ''small businesses'' for the purposes of the statute. DOE used the SBA's small business size standards to determine whether any small entities would be subject to the requirements of the rule. 65 FR 30836, 30848 (May 15, 2000), as amended at 65 FR 53533, 53544 (Sept. 5, 2000) and codified at 13 CFR part 121. The size standards are listed by NAICS code and industry description and are available at: *http://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf*. Commercial refrigeration equipment manufacturing is classified under NAICS 333415, ''Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.'' The SBA sets a threshold of 750 employees or less for an entity to be considered as a small business for this category.

During its market survey, DOE used available public information to identify potential small manufacturers. DOE's research involved industry trade association membership directories (including AHRI), public databases (*e.g.,* AHRI Directory,[91] the SBA Database [92]), individual company Web sites, and market research tools (*e.g.,* Dunn and Bradstreet reports [93] and Hoovers reports)[94] to create a list of companies that manufacture or sell products covered by this rulemaking. DOE also asked stakeholders and industry representatives if they were aware of any other small manufacturers during manufacturer interviews and at DOE public meetings. DOE reviewed publicly available data and contacted select companies on its list, as necessary, to determine whether they met the SBA's definition of a small business manufacturer of covered commercial refrigeration equipment. DOE screened out companies that do not offer products covered by this rulemaking, do not meet the definition of a ''small business,'' or are foreign owned.

DOE identified 54 companies selling commercial refrigeration equipment products in the United States. Nine of the companies are foreign-owned firms. Of the remaining 45 companies, about 70 percent (32 companies) are small domestic manufacturers. DOE contacted eight domestic commercial refrigeration equipment manufacturers for interviews and all eight companies accepted. Of these eight companies, four were small businesses.

2. Description and Estimate of Compliance Requirements

The 32 identified domestic manufacturers of commercial refrigeration equipment that qualify as small businesses under the SBA size standard account for approximately 26 percent of commercial refrigeration equipment shipments.[95] While some small businesses have significant market share (*e.g.,* Continental has a 4-percent market share for foodservice commercial refrigeration)[95], the majority of small businesses have less than a 1-percent market share. These smaller firms often specialize in designing custom products and servicing niche markets.

At the proposed level, the average small manufacturer is expected to face capital conversion costs that are more than triple the average annual capital expenditures, and product conversion costs that are 80% of annual R&D spending, as shown in Table VI.1. At the proposed level, the conversion costs are driven by the incorporation of thicker insulation into case designs. The thicker cases design may necessitate the purchase of new jigs for production. Manufacturer estimates of the cost of a new jig ranged from $50,000 to $300,000 in 2011, depending on the jig design. In addition to the cost of jigs, changes in case thickness may require product redesign due to changes in the interior volume of the equipment and may require new industry certifications.

The proposed standard could cause small manufacturers to be at a disadvantage relative to large manufacturers. The capital conversion costs represent a smaller percentage of annual capital expenditures for large manufacturers than for small manufacturers. The capital conversion costs are 60 percent of annual capital expenditures for an average large manufacturer, while capital conversion costs are 423 percent of annual capital expenditures for an average small manufacturer. Small manufacturers may have greater difficulty obtaining credit, or may obtain less favorable terms than larger competitors when financing the equipment necessary to meet an amended standard.

[91] See *www.ahridirectory.org/ahriDirectory/pages/home.aspx*.

[92] See *http://dsbs.sba.gov/dsbs/search/dsp_dsbs.cfm*.

[93] See *www.dnb.com/*.

[94] See *www.hoovers.com/*.

[95] 32nd Annual Portrait of the U.S. Appliance Industry. *Appliance Magazine.* September 2009. 66(7).

Additionally, small manufacturers may be disproportionately affected by equipment conversion costs. Product redesign and industry certification costs tend to be fixed and do not scale with sales volume. For each equipment platform, small businesses must make equipment redesign investments that are similar to their large competitors. However, small manufacturer costs are spread over a much lower volume of units, making cost recovery more difficult.

Manufacturers indicated that many design options evaluated in the engineering analysis (*e.g.,* higher efficiency lighting, motors, and compressors) would force them to purchase more expensive components. Due to smaller purchasing volumes, small manufacturers typically pay higher prices for components, while their large competitors receive volume discounts. At the proposed standard, small businesses will likely have greater increases in component costs than large businesses and will thus be at a pricing disadvantage.

Small firms would likely be at a disadvantage relative to larger firms in meeting an amended energy conservation standard for commercial refrigeration equipment. The small businesses face disadvantages in terms of access to capital, the cost of product redesigns, and pricing for key components. As a result, DOE could not certify that the proposed standards would not have a significant impact on a significant number of small businesses.

To estimate how small manufacturers would be potentially impacted, DOE used the market share of small manufacturers to estimate the annual revenue, earnings before interest and tax (EBIT), R&D expense, and capital expenditures for a typical small manufacturer. DOE then compared these costs to the required capital and product conversion costs at each TSL for both an average small manufacturer (Table VI.1) and an average large manufacturer (Table VI.2). In the following tables, TSL 4 represents the proposed standard.

TABLE VI.1—COMPARISON OF AN AVERAGE SMALL COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURER'S CONVERSION COSTS TO ANNUAL EXPENSES, REVENUE, AND PROFIT

TSL	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual EBIT
TSL 1	0	0	0	0
TSL 2	102	71	5	63
TSL 3	238	76	10	119
TSL 4	423	80	17	196
TSL 5	1400	489	62	717

TABLE VI.2—COMPARISON OF AN AVERAGE LARGE COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURER'S CONVERSION COSTS TO ANNUAL EXPENSES, REVENUE, AND PROFIT

TSL	Capital conversion cost as a percentage of annual capital expenditures	Product conversion cost as a percentage of annual R&D expense	Total conversion cost as a percentage of annual revenue	Total conversion cost as a percentage of annual EBIT
TSL 1	0	0	0	0
TSL 2	15	10	1	9
TSL 3	34	11	1	17
TSL 4	60	11	2	28
TSL 5	200	70	9	102

3. Duplication, Overlap, and Conflict With Other Rules and Regulations

DOE is not aware of any rules or regulations that duplicate, overlap, or conflict with the rule being proposed today.

4. Significant Alternatives to the Rule

The primary alternatives to the proposed rule are the TSLs other than the one proposed today, TSL 4. DOE explicitly considered the role of manufacturers, including small manufacturers, in its selection of TSL 4 rather than TSL 5. Though TSL 5 results in greater energy savings for the country, the standard would place excessive burdens on manufacturers. Chapter 12 of the NOPR TSD contains additional information about the impact of this rulemaking on manufacturers.

In addition to the other TSLs being considered, the NOPR TSD includes an RIA. For commercial refrigeration equipment, the RIA discusses the following policy alternatives: (1) No change in standard; (2) customer rebates; (3) customer tax credits; (4) manufacturer tax credits; and (5) early replacement. While these alternatives may mitigate to some varying extent the economic impacts on small entities compared to the amended standards, DOE determined that the energy savings of these regulatory alternatives would be at least five times smaller than those that would be expected to result from adoption of the proposed amended standard levels. Thus, DOE rejected these alternatives and is proposing to adopt the amended standards set forth in this rulemaking. (See chapter 17 of the NOPR TSD for further detail on the policy alternatives DOE considered.)

However, DOE seeks comment and, in particular, data on the impacts of this rulemaking on small businesses. (See Issue 10 under ''Issues on Which DOE Seeks Comment'' in section VII.E of this NOPR.)

C. Review Under the Paperwork Reduction Act

Manufacturers of commercial refrigeration equipment must certify to DOE that their products comply with any applicable energy conservation standards. In certifying compliance, manufacturers must test their products according to the DOE test procedures for commercial refrigeration equipment, including any amendments adopted for those test procedures. DOE has

established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including commercial refrigeration equipment. 76 FR 12422 (March 7, 2011). The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB Control Number 1910–1400. Public reporting burden for the certification is estimated to average 20 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

Pursuant to the National Environmental Policy Act (NEPA) of 1969, (42 U.S.C. 4321 *et seq.*) DOE has determined that the proposed rule fits within the category of actions included in Categorical Exclusion (CX) B5.1 and otherwise meets the requirements for application of a CX. *See* 10 CFR part 1021, appendix B, B5.1(b); 1021.410(b) and appendix B, B(1)–(5). The proposed rule fits within the category of actions because it is a rulemaking that establishes energy conservation standards for consumer products or industrial equipment, and for which none of the exceptions identified in CX B5.1(b) apply. Therefore, DOE has made a CX determination for this rulemaking, and DOE does not need to prepare an Environmental Assessment or Environmental Impact Statement for this proposed rule. DOE's CX determination for this proposed rule is available at *http://cxnepa.energy.gov/.*

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (Aug. 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of today's proposed rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this proposed rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at *http://energy.gov/gc/office-general-counsel*.

Although today's proposed rule does not contain a Federal intergovernmental mandate, it may require expenditures of $100 million or more on the private sector. Specifically, the proposed rule will likely result in a final rule that could require expenditures of $100 million or more. Such expenditures may include: (1) Investment in research and development and in capital expenditures by commercial refrigeration equipment manufacturers in the years between the final rule and the compliance date for the new standards; and (2) incremental additional expenditures by customers to purchase higher efficiency commercial refrigeration equipment, starting at the compliance date for the applicable standard.

Section 202 of UMRA authorizes a Federal agency to respond to the content requirements of UMRA in any other statement or analysis that accompanies the proposed rule. (2 U.S.C. 1532(c)) The content requirements of section 202(b) of UMRA relevant to a private sector mandate substantially overlap the economic analysis requirements that apply under section 325(o) of EPCA and

Executive Order 12866. The **SUPPLEMENTARY INFORMATION** section of this NOPR and the ''Regulatory Impact Analysis'' section of the NOPR TSD for this proposed rule respond to those requirements.

Under section 205 of UMRA, DOE is obligated to identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a written statement under section 202 is required. (2 U.S.C. 1535(a)) DOE is required to select from those alternatives the most cost-effective and least burdensome alternative that achieves the objectives of the proposed rule unless DOE publishes an explanation for doing otherwise, or the selection of such an alternative is inconsistent with law. As required by 42 U.S.C. 6295(d), (f), and (o), 6313(e), and 6316(a), today's proposed rule would establish energy conservation standards for commercial refrigeration equipment that are designed to achieve the maximum improvement in energy efficiency that DOE has determined to be both technologically feasible and economically justified. A full discussion of the alternatives considered by DOE is presented in the ''Regulatory Impact Analysis'' section of the TSD for today's proposed rule.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (Mar. 18, 1988), that this regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516, note) provides for Federal agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed today's NOPR under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OIRA at OMB a Statement of Energy Effects for any proposed significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that: (1) Is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

DOE has tentatively concluded that today's regulatory action, which sets forth proposed energy conservation standards for commercial refrigeration equipment, is not a significant energy action because the proposed standards are not likely to have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as such by the Administrator at OIRA. Accordingly, DOE has not prepared a Statement of Energy Effects on the proposed rule.

L. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy (OSTP), issued its Final Information Quality Bulletin for Peer Review (the Bulletin). 70 FR 2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the Bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are ''influential scientific information,'' which the Bulletin defines as scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions. 70 FR 2667 (Jan. 14, 2005).

In response to OMB's Bulletin, DOE conducted formal in-progress peer reviews of the energy conservation standards development process and analyses and has prepared a Peer Review Report pertaining to the energy conservation standards rulemaking analyses. Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects. The ''Energy Conservation Standards Rulemaking Peer Review Report,'' dated February 2007, has been disseminated and is available at the following Web site: *www1.eere.energy.gov/buildings/appliance_standards/peer_review.html*.

VII. Public Participation

A. Attendance at the Public Meeting

The time, date, and location of the public meeting are listed in the **DATES** and **ADDRESSES** sections at the beginning of this notice. If you plan to attend the public meeting, please notify Ms. Brenda Edwards at (202) 586–2945 or *Brenda.Edwards@ee.doe.gov*. Please note that foreign nationals visiting DOE Headquarters are subject to advance security screening procedures. Any foreign national wishing to participate in the meeting should advise DOE as soon as possible by contacting Ms. Edwards to initiate the necessary procedures. Please also note that those wishing to bring laptops into the Forrestal Building will be required to obtain a property pass. Visitors should avoid bringing laptops, or allow an extra 45 minutes.

In addition, you can attend the public meeting via webinar. Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's Web site at: *www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/52*. Participants

are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has plans to present a prepared general statement may request that copies of his or her statement be made available at the public meeting. Such persons may submit requests, along with an advance electronic copy of their statement in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format, to the appropriate address shown in the **ADDRESSES** section at the beginning of this notice. The request and advance copy of statements must be received at least one week before the public meeting and may be emailed, hand-delivered, or sent by mail. DOE prefers to receive requests and advance copies via email. Please include a telephone number to enable DOE staff to make follow-up contact, if needed.

C. Conduct of the Public Meeting

DOE will designate a DOE official to preside at the public meeting and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the public meeting. After the public meeting, interested parties may submit further comments on the proceedings as well as on any aspect of the rulemaking until the end of the comment period.

The public meeting will be conducted in an informal, conference style. DOE will present summaries of comments received before the public meeting, allow time for prepared general statements by participants, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will allow, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly and comment on statements made by others. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may also ask questions of participants concerning other matters relevant to this rulemaking. The official conducting the public meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the public meeting.

A transcript of the public meeting will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this notice. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

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

Submitting comments via *regulations.gov.* The *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.

Do not submit to *regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (CBI)). Comments submitted through regulations.gov cannot be claimed as CBI. Comments received through the Web site will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section below.

DOE processes submissions made through 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 regulations.gov provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or mail. Comments and documents submitted via email, hand delivery, or mail also will be posted to *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 mail or hand delivery/courier, please provide all items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (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. According 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, postal mail, or hand delivery/courier 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. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include: (1) A description of the items; (2) whether and why such items are customarily treated as confidential within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information has previously been made available to others without obligation concerning its confidentiality; (5) an explanation of the competitive injury to the submitting person which would result from public disclosure; (6) when such information might lose its confidential character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

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).

E. Issues on Which DOE Seeks Comment

Although DOE welcomes comments on any aspect of this proposal, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues.

1. Primary and Secondary Equipment Classes

In the January 2009 final rule analysis, DOE selected 15 ''primary'' classes to analyze directly in its engineering analyses, and designated the remaining 23 classes as ''secondary'' classes, for which standards were developed based on the primary class results. These designations were based on shipment-volume data coupled with input from stakeholders during that rulemaking process. As this rulemaking seeks to review and potentially amend standards for the 38 total equipment classes examined in the January 2009 final rule, DOE retained those primary and secondary class designations in its analyses. Additionally, equipment for which EPACT 2005 directly set standards was incorporated into the scope of this rulemaking. DOE treated all of these equipment classes previously covered by EPACT 2005 standards as primary classes. DOE seeks comment regarding its designation of primary and secondary equipment classes.

2. Design Option and Core Case Costs

During the NOPR analyses, DOE performed physical teardowns on a selection of units currently on the market. From the bills of materials and cost model developed using this teardown data, DOE calculated an estimate of the manufacturer production cost of the core case assembly for each of the primary equipment classes in the engineering analysis. DOE also developed estimates of the costs for components that affect energy consumption, namely those it considered as design options. These estimates were obtained from a combination of sources, including publicly available prices from vendors and confidential estimates provided by manufacturers. This price data was aggregated for use in the engineering analysis. DOE seeks comment and data regarding the manufacturer production costs for commercial refrigeration equipment cases and components and the technological feasibility of applying technologies identified in the engineering analysis to meeting the proposed standards.

3. Offset Factors

In its January 2009 final rule, DOE developed offset factors as a way to adjust the energy efficiency requirements for smaller equipment in each equipment class analyzed. These offset factors accounted for certain components of the refrigeration load (such as conduction end effects) that remain constant when equipment size varies and thus affect smaller cases disproportionately. The offset factors were intended to approximate these constant loads and provide a fixed end point, corresponding to a zero-volume or zero-TDA case, in an equation that describes the relationship between energy consumption and the corresponding TDA or volume metric. Similarly, the EPACT 2005 standards also contained values that did not vary with unit volume and which served a similar purpose. In developing standard level equations for the proposed amended standards, DOE scaled the existing offset factors by the ratio of the amount of energy consumption allowed by the existing standards for a given representative unit and the energy use calculated in the engineering analysis at each TSL. This adjustment of the offset factors ensures that neither larger nor smaller units are disadvantaged by these proposed standards. DOE seeks comment on its methodology for developing offset factors for the standard level equations presented in this NOPR.

4. Extension of Standards

In its January 2009 final rule, DOE developed a quantitative method for applying the standards developed for its primary equipment classes to the remaining, secondary classes. This approach involved extension multipliers created using results from the analysis of the primary equipment classes and a set of focused matched-pair analyses. Additionally, DOE applied standards developed for certain primary equipment classes directly to other similar secondary classes. In this rulemaking, DOE retained the extension multipliers from the January 2009 final rule and reapplied them to the equipment classes from that rulemaking for which DOE is proposing amended standards. DOE believes that the relationship between the performances of various types of equipment is still adequately modeled by the use of those multipliers. DOE's approach in developing extension multipliers in the 2009 rulemaking and its rationale for retaining them in this rulemaking are discussed in detail in section 5.9 of the NOPR TSD. DOE seeks comment on its approach to extending the results of the engineering analysis to secondary equipment classes. Specifically, DOE requests comment on whether the assumptions underlying its development and application of extension multipliers are appropriate, or whether there are additional differences between related equipment classes that DOE should take into account.

5. Types of Refrigerant Analyzed

DOE based its analysis on refrigeration equipment using R404A and R134a, HFC refrigerants widely used in the commercial refrigeration industry. DOE received comments regarding the consideration of refrigerants with lower GWP due to possible shifts in the marketplace toward these refrigerants and notes that a number of lower-GWP alternatives are available for use within certain portions of the commercial refrigeration sector.[96] The use of alternative refrigerants could be impacting to Climate Change and the environment. DOE requests comment on the extent of the current use or likely future use of lower-GWP refrigerants,

[96] For an overview of lower-GWP alternatives available to certain sections of the commercial refrigeration equipment sector, please see *http://www.epa.gov/ozone/downloads/EPA_HFC_ComRef.pdf*

and asks manufacturers to submit data related to the ability of equipment (either existing or redesigned) using these refrigerants to meet the proposed standard. DOE seeks input as to the impacts of alternative refrigerants to the refrigeration system in this rulemaking.

6. Distribution Channel Market Shares and Markups

DOE has revised the distribution channel market shares for some of the equipment classes based on comments received during April 2011 preliminary analysis public meeting. The markup values associated with each distribution channel have been updated based on currently available industry profit data. DOE welcomes comment on the assumptions and values used for the markups analysis.

7. Market Shares of Efficiency Levels

DOE seeks comments on the market shares of efficiency levels used for this NOPR analysis. DOE is currently using a model to predict the market share of efficiency levels. According to commenters, the calculated market shares are biased toward the higher efficiency levels. However, DOE has cited lack of data as the primary reason for its lack of more accurate numbers. DOE welcomes information from stakeholders that would aid DOE in improving upon the numbers for market shares of efficiency levels.

8. Maintenance and Repair Costs at Higher Efficiency Levels.

Currently, DOE assumes no increase in regular maintenance costs at higher efficiency levels contemplated in the proposed rule. Lighting maintenance and repair costs are estimated based on OEM costs; they vary with higher efficiency levels. DOE welcomes stakeholder input and additional information to improve upon these estimates with respect to maintenance and repair costs. Data pertaining to cost increases specifically associated with the design options considered in this rulemaking would be greatly appreciated.

9. Impact of Amended Standards on Future Shipments

Currently, DOE assumes that future shipments of commercial refrigeration equipment will not be affected by amended standards. While DOE has cited strong reasons to believe that this assumption is true for display cases, the assumption may not be entirely true in the case of equipment used in the foodservice industry. While there may be a small effect in the initial years of amended standards, DOE does not have data for the commercial refrigeration industry to obtain a reasonably accurate estimate of this effect. DOE welcomes stakeholder input and estimates on the effect of amended standards on future commercial refrigeration equipment shipments. DOE also welcomes input and data on the demand elasticity estimates used in the analysis.

10. Learning Impacts on Price Forecast for Future Shipments

Currently, DOE projects future prices by subtracting the cost reductions associated with learning effects from the cost associated with the amended standards. DOE analyzes learning effects using PPI, a quantity adjusted index of wholesale prices, as a proxy for price of commercial refrigerators. DOE is seeking input, and price data that could be used in place of PPI. Also DOE is seeking input on the magnitude of the price data and the cause of those price changes.

11. Product Attributes

DOE requests comment on whether there are features or attributes of the more energy-efficient commercial refrigerators that manufacturers would produce to meet the standards in this proposed rule that might affect how they would be used by different customer categories (e.g., refrigeration in grocery stores or restaurants). One example of such an effect might be that grocers or restaurant operators would change where, how, and how long food items would be stored or displayed. DOE requests comment specifically on how any such effects should be weighed in the choice of standards for these refrigerators for the final rule.

12. Analytical Timeline

For this rulemaking, DOE analyzed the effects of this proposal assuming that the commercial refrigerators would be available to purchase for 30 years and undertook a sensitivity analysis using 9 years rather than 30 years of product shipments. The choice of a 30-year period of shipments is consistent with the DOE analysis for other products and commercial equipment. The choice of a 9-year period is a proxy for the timeline in EPCA for the review of certain energy conservation standards and potential revision of and compliance with such revised standards. We are seeking input, information and data on whether there are ways to refine the analytic timeline further.

13. Equipment Lifetime

DOE defines lifetime as the age at which a commercial refrigeration equipment unit is retired from service. DOE based expected equipment lifetime on discussions with industry experts and concluded that a typical lifetime of 10 years is appropriate for most commercial refrigeration equipment in large grocery/multi-line stores and restaurants. Operators of small food retail stores, on the other hand, tend to use display cases longer. DOE used 15 years as the average equipment lifetime for display cases used in such retail stores. DOE welcomes further input on the average equipment lifetimes for the LCC analysis and NIA.

14. Small Businesses

During the Framework and preliminary analysis public meetings, DOE received many comments regarding the potential impacts of amended energy conservation standards on small business manufacturers of commercial refrigeration equipment. In its market and technology assessment and manufacturer impact analysis research, DOE developed a list of companies falling under its classification of small businesses, and sought specific feedback regarding potentially disproportionate impacts of amended standards on these businesses. DOE incorporated this feedback into its analyses for the NOPR and has presented its results in this notice and the technical support document. However, DOE seeks comment and, in particular, data, in its efforts to quantify the impacts of this rulemaking on small business manufacturers. In addition, DOE seeks comment on any disproportionate impacts of amended standards on any particular customer groups, such as small businesses that are small grocery, convenience stores, and restaurants.

15. Update to Social Cost of Carbon Values

DOE solicits comment on the application of the new SCC values used to determine the social benefits of CO_2 emissions reductions over the rulemaking analysis period. The rulemaking analysis period covers from 2017 to 2046 plus an additional 15 years to account for the lifetime of the equipment purchased between 2017 and 2046. In particular, the agency solicits comment on the agency's derivation of SCC values after 2050 where the agency applied the average annual growth rate of the SCC estimates in 2040–2050 associated with each of the four sets of values.

16. Cumulative Regulatory Burdens

The agency seeks input on the cumulative regulatory burden that may be imposed on industry either from recently implemented rulemakings for

this product class or other rulemakings that affect the same industry.

17. Compliance Date

Pursuant to EPCA, any amended standards established in this rulemaking must apply to equipment that is manufactured on or after 3 years after the final rule is published in the **Federal Register** unless DOE determines, by rule, that a 3-year period is inadequate, in which case DOE may extend the compliance date for that standard by an additional 2 years. DOE proposes to provide 3 years for compliance with this standard, but seeks comment on whether it should consider a longer compliance date as authorized, and, if so, by how much.

VIII. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of today's proposed rule.

List of Subjects in 10 CFR Part 431

Administrative practice and procedure, Confidential business information, Energy conservation, and Reporting and recordkeeping requirements.

Issued in Washington, DC, on August 29, 2013.

Mike Carr,

Acting Assistant Secretary, Energy Efficiency and Renewable Energy.

For the reasons set forth in the preamble, DOE proposes to amend part 431 of chapter II of title 10, of the Code of Federal Regulations, as set forth below:

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 431 continues to read as follows:

Authority: 42 U.S.C. 6291–6317.

■ 2. Section 431.62 is amended by adding in alphabetical order a definition for ''service over counter,'' to read as follows:

§ 431.62 Definitions concerning commercial refrigerators, freezers and refrigerator-freezers.

* * * * *

Service over counter means equipment with sliding or hinged doors in the back intended for use by sales personnel for loading and retrieving items for sale and fixed, sliding or hinged transparent panels in the front for displaying merchandise. The equipment has a height no greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers.

* * * * *

■ 3. Section 431.66 is amended by:

■ a. Revising paragraph (a)(3);

■ b. Revising paragraph (b) introductory text;

■ c. Revising paragraph (c);

■ d. Revising paragraph (d) introductory text; and

■ c. Adding paragraph (e).

The revisions and addition read as follows:

§ 431.66 Energy conservation standards and their effective dates.

(a) * * *

(3) For the purpose of paragraph (d) of this section, the term ''TDA'' means the total display area (ft^2) of the case, as defined in ARI Standard 1200–2006, appendix D (incorporated by reference, see § 431.63). For the purpose of paragraph (e) of this section, the term ''TDA'' means the total display area (ft^2) of the case, as defined in AHRI Standard 1200 (I–P)-2010, appendix D (incorporated by reference, see § 431.63).

(b) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications manufactured on or after January 1, 2010 and before [*date 3 years after date of publication of the final rule in the* ***Federal Register***] shall have a daily energy consumption (in kilowatt-hours per day) that does not exceed the following:

* * * * *

(c) Each commercial refrigerator with a self-contained condensing unit designed for pull-down temperature applications and transparent doors manufactured on or after January 1, 2010 and before [*date 3 years after date of publication of the final rule in the* ***Federal Register***] shall have a daily energy consumption (in kilowatt-hours per day) of not more than 0.126V + 3.51.

(d) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit and without doors; commercial refrigerator, freezer, and refrigerator-freezer with a remote condensing unit; and commercial ice-cream freezer manufactured on or after January 1, 2012 and before [*date 3 years after date of publication of the final rule in the* ***Federal Register***] shall have a daily energy consumption (in kilowatt-hours per day) that does not exceed the levels specified:

* * * * *

(e) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications and with solid or transparent doors; commercial refrigerator with a self-contained condensing unit designed for pull-down temperature applications and with transparent doors; commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit and without doors; commercial refrigerator, freezer, and refrigerator-freezer with a remote condensing unit; and commercial ice-cream freezer manufactured on or after [*date 3 years after date of publication of the final rule in the* ***Federal Register***], shall have a daily energy consumption (in kilowatt-hours per day) that does not exceed the levels specified:

(1) For equipment other than hybrid equipment, refrigerator/freezers, or wedge cases:

Equipment category	Condensing unit configuration	Equipment family	Rating temp. °F	Operating temp. °F	Equipment class designation*	Maximum daily energy consumption kWh/day
Remote Condensing Commercial Refrigerators and Commercial Freezers.	Remote (RC)	Vertical Open (VOP)	38 (M)	≥32	VOP.RC.M	0.61 × TDA + 3.03
			0 (L)	<32	VOP.RC.L	2.11 × TDA + 6.36
		Semivertical Open (SVO).	38 (M)	≥32	SVO.RC.M	0.63 × TDA + 2.41
			0 (L)	<32	SVO.RC.L	2.11 × TDA + 6.36
		Horizontal Open (HZO).	38 (M)	≥32	HZO.RC.M	0.35 × TDA + 2.88
			0 (L)	<32	HZO.RC.L	0.57 × TDA + 6.88
		Vertical Closed Transparent (VCT).	38 (M)	≥32	VCT.RC.M	0.08 × TDA + 0.72
			0 (L)	<32	VCT.RC.L	0.43 × TDA + 2.03
		Horizontal Closed Transparent (HCT).	38 (M)	≥32	HCT.RC.M	0.14 × TDA + 0.11
			0 (L)	<32	HCT.RC.L	0.3 × TDA + 0.23
		Vertical Closed Solid (VCS).	38 (M)	≥32	VCS.RC.M	0.1 × V + 0.24
			0 (L)	<32	VCS.RC.L	0.21 × V + 0.5

Equipment category	Condensing unit configuration	Equipment family	Rating temp. °F	Operating temp. °F	Equipment class designation*	Maximum daily energy consumption kWh/day
		Horizontal Closed Solid (HCS).	38 (M)	≥32	HCS.RC.M	0.1 × V + 0.24
			0 (L)	<32	HCS.RC.L	0.21 × V + 0.5
		Service Over Counter (SOC).	38 (M)	≥32	SOC.RC.M	0.39 × TDA + 0.08
			0 (L)	<32	SOC.RC.L	0.83 × TDA + 0.18
Self-Contained Commercial Refrigerators and Commercial Freezers Without Doors.	Self-Contained (SC)	Vertical Open (VOP)	38 (M)	≥32	VOP.SC.M	1.51 × TDA + 4.09
			0 (L)	<32	VOP.SC.L	3.79 × TDA + 10.26
		Semivertical Open (SVO).	38 (M)	≥32	SVO.SC.M	1.5 × TDA + 3.99
			0 (L)	<32	SVO.SC.L	3.77 × TDA + 10.01
		Horizontal Open (HZO).	38 (M)	≥32	HZO.SC.M	0.75 × TDA + 5.44
			0 (L)	<32	HZO.SC.L	1.92 × TDA + 7.08
Self-Contained Commercial Refrigerators and Commercial Freezers With Doors.	Self-Contained (SC)	Vertical Closed Transparent (VCT).	38 (M)	≥32	VCT.SC.M	0.04 × V + 1.07
			0 (L)	<32	VCT.SC.L	0.22 × V + 1.21
		Vertical Closed Solid (VCS).	38 (M)	≥32	VCS.SC.M	0.03 × V + 0.53
			0(L)	<32	VCS.SC.L	0.13 × V + 0.43
		Horizontal Closed Transparent (HCT).	38 (M)	≥32	HCT.SC.M	0.02 × V + 0.51
			0 (L)	<32	HCT.SC.L	0.11 × V + 0.6
		Horizontal Closed Solid (HCS).		≥32	HCS.SC.M	0.02 × V + 0.37
			0 (L).	<32	HCS.SC.L	0.12 × V + 0.42
		Service Over Counter (SOC).		≥32	SOC.SC.M	0.32 × TDA + 0.53
			0 (L).	<32	SOC.SC.L	0.67 × TDA + 1.12
Self-Contained Commercial Refrigerators with Transparent Doors for Pull-Down Temperature Applications.	Self-Contained (SC)	Pull-Down (PD)	38 (M)	≥32	PD.SC.M	0.03 × V + 0.83
Commercial Ice-Cream Freezers.	Remote (RC)	Vertical Open (VOP)	−15 (I)	≤−5**	VOP.RC.I	2.68 × TDA + 8.08
		Semivertical Open (SVO).			SVO.RC.I	2.68 × TDA + 8.08
		Horizontal Open (HZO).			HZO.RC.I	0.72 × TDA + 8.74
		Vertical Closed Transparent (VCT).			VCT.RC.I	0.51 × TDA + 2.37
		Horizontal Closed Transparent (HCT).			HCT.RC.I	0.35 × TDA + 0.27
		Vertical Closed Solid (VCS).			VCS.RC.I	0.25 × V + 0.58
		Horizontal Closed Solid (HCS).			HCS.RC.I	0.25 × V + 0.58
		Service Over Counter (SOC).			SOC.RC.I	0.97 × TDA + 0.21
	Self-Contained (SC)	Vertical Open (VOP)			VOP.SC.I	4.81 × TDA + 13.03
		Semivertical Open (SVO)\.			SVO.SC.I	4.79 × TDA + 12.72
		Horizontal Open (HZO).			HZO.SC.I	2.44 × TDA + 9.0
		Vertical Closed Transparent (VCT).			VCT.SC.I	0.52 × TDA + 2.56
		Horizontal Closed Transparent (HCT).			HCT.SC.I	0.49 × TDA + 0.37
		Vertical Closed Solid (VCS).			VCS.SC.I	0.35 × V + 0.81
		Horizontal Closed Solid (HCS).			HCS.SC.I	0.35 × V + 0.81
		Service Over Counter (SOC).			SOC.SC.I	1.35 × TDA + 0.29

* The meaning of the letters in this column is indicated in the columns to the left.

** Ice-cream freezer is defined in 10 CFR 431.62 as a commercial freezer that is designed to operate at or below −5 °F *(−21 °C) and that the manufacturer designs, markets, or intends for the storing, displaying, or dispensing of ice cream.

(2) For commercial refrigeration equipment with two or more compartments (*i.e.,* hybrid refrigerators, hybrid freezers, hybrid refrigerator-freezers, and non-hybrid refrigerator-freezers), the maximum daily energy consumption for each model shall be the sum of the MDEC values for all of its compartments. For each compartment, measure the TDA or volume of that compartment, and determine the appropriate equipment class based on that compartment's equipment family, condensing unit configuration, and designed operating temperature. The MDEC limit for each compartment shall be the calculated value obtained by entering that compartment's TDA or volume into the standard equation in paragraph (e)(1) of this section for that compartment's equipment class. Measure the CDEC or TDEC for the entire case as described in § 431.66(d)(2)(i) through (iii), except

that where measurements and calculations reference ARI Standard 1200–2006 (incorporated by reference, see § 431.63), AHRI Standard 1200 (I–P)-2010 (incorporated by reference, see § 431.63) shall be used.

(3) For remote condensing and self-contained wedge cases, measure the CDEC or TDEC according to the AHRI Standard 1200 (I–P)-2010 test procedure (incorporated by reference, see § 431.63). For wedge cases in equipment classes for which a volume metric is used, the MDEC shall be the amount derived from the appropriate standards equation in paragraph (e)(1) of this section. For wedge cases of equipment classes for which a TDA metric is used, the MDEC for each model shall be the amount derived by incorporating into the standards equation in paragraph (e)(1) of this section for the equipment class a value for the TDA that is the product of:

(i) The vertical height of the air curtain (or glass in a transparent door) and

(ii) The largest overall width of the case, when viewed from the front.

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Part IV

Environmental Protection Agency

40 CFR Part 98

Revisions to Reporting and Recordkeeping Requirements, and Proposed Confidentiality Determinations Under the Greenhouse Gas Reporting Program; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 98

[EPA–HQ–OAR–2010–0929; FRL–9801–2]

RIN 2060–AQ81

Revisions to Reporting and Recordkeeping Requirements, and Proposed Confidentiality Determinations Under the Greenhouse Gas Reporting Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing amendments to reporting and recordkeeping requirements and an alternative verification approach for the Greenhouse Gas Reporting Program. This action addresses concerns about the potential release of certain data that are inputs to emission equations for which the reporting deadline was deferred until March 31, 2015 while maintaining the EPA's ability to verify emissions and ensure compliance with the Greenhouse Gas Reporting Program. In addition, the EPA is proposing confidentiality determinations for the newly proposed data elements in this action.

DATES: *Comments.* Comments must be received on or before November 12, 2013.

Public Hearing. The EPA will hold a public hearing on this proposed rule if requested. Requests for a hearing must be made by September 18, 2013. Contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section by September 18, 2013 to request a public hearing. If a hearing is requested, the EPA will announce the details, including specific dates, times, addresses and contact information for the hearing, in a separate **Federal Register** notice.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2010–0929, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments.
- *Email: GHGReportingCBI@epa.gov.*
- *Fax:* (202) 566–1741.
- *Mail:* Environmental Protection Agency, EPA Docket Center (EPA/DC), Mailcode 6102T, Attention Docket ID No. EPA–HQ–OAR–2010–0929, 1200 Pennsylvania Avenue NW., Washington, DC 20460.
- *Hand Delivery:* EPA Docket Center, Public Reading Room, William Jefferson Clinton Building West, Room 3334, 1301 Constitution Avenue NW., Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2010–0929. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute.

Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or email. Send or deliver information identified as CBI to only the mail or hand/courier delivery address listed above, attention: Docket ID No. EPA–HQ–OAR–2010–0929. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through *http://www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the Air Docket, EPA/DC, William Jefferson Clinton Building West, Room B102, 1301 Constitution Ave. NW., Washington, DC. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER GENERAL INFORMATION CONTACT: Carole Cook, Climate Change Division, Office of Atmospheric Programs (MC–6207J), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: (202) 343–9263; fax number: (202) 343–2342; email address: *GHGreporting@epa.gov.* For technical information, contact the Greenhouse Gas Reporting Rule Helpline at: *http://www.epa.gov/climatechange/emissions/ghgrule_contactus.htm.* Alternatively, contact Carole Cook at 202–343–9263.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of this proposal, memoranda to the docket, and all other related information will also be available through the WWW on the EPA's greenhouse gas reporting rule Web site at *http://www.epa.gov/climatechange/emissions/ghgrulemaking.html.*

SUPPLEMENTARY INFORMATION:

Additional Information on Submitting Comments: To expedite review of your comments by Agency staff, you are encouraged to send a separate copy of your comments, in addition to the copy you submit to the official docket, to Carole Cook, Climate Change Division, Office of Atmospheric Programs (MC–6207J), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460, telephone (202) 343–9263, email *GHGReportingCBI@epa.gov.*

Regulated Entities. This proposed rule revision on reporting and recordkeeping requirements and verification procedures would affect entities that must submit annual greenhouse gas (GHG) reports under the Greenhouse Gas Reporting Program (40 CFR part 98). The Administrator has determined that 40 CFR part 98 is subject to the provisions of Clean Air Act (CAA) section 307(d). See CAA section 307(d)(1)(V) (the provisions of CAA section 307(d) apply to ''such other actions as the Administrator may determine''). Entities affected by this proposal are owners or operators of facilities that are direct emitters of GHGs, which include those listed in Table 1 of this preamble:

TABLE 1—EXAMPLES OF AFFECTED ENTITIES BY CATEGORY

Category	NAICS	Examples of affected facilities
General Stationary Fuel Combustion Sources.		Facilities operating boilers, process heaters, incinerators, turbines, and internal combustion engines.
	321	Manufacturers of lumber and wood products.
	322	Pulp and paper mills.
	325	Chemical manufacturers.
	324	Petroleum refineries and manufacturers of coal products.
	316, 326, 339	Manufacturers of rubber and miscellaneous plastic products.
	331	Steel works, blast furnaces.
	332	Electroplating, plating, polishing, anodizing, and coloring.
	336	Manufacturers of motor vehicle parts and accessories.
	221	Electric, gas, and sanitary services.
	622	Health services.
	611	Educational services.
	325193	Ethyl alcohol manufacturing facilities.
	311611	Meat processing facilities
	311411	Frozen fruit, juice, and vegetable manufacturing facilities.
	311421	Fruit and vegetable canning facilities.
Adipic Acid Production	325199	Adipic acid manufacturing facilities.
Aluminum Production	331312	Primary aluminum production facilities
Ammonia Manufacturing	325311	Anhydrous and aqueous ammonia production facilities.
Cement Production	327310	Portland Cement manufacturing plants.
Ferroalloy Production	331112	Ferroalloys manufacturing facilities.
Fluorinated GHG Production	325120	Industrial gases manufacturing facilities.
Glass Production	327211	Flat glass manufacturing facilities.
	327213	Glass container manufacturing facilities.
	327212	Other pressed and blown glass and glassware manufacturing facilities.
HCFC–22 Production and HFC–23 Destruction.	325120	Chlorodifluoromethane manufacturing facilities.
Hydrogen Production	325120	Hydrogen production facilities
Iron and Steel Production	331111	Integrated iron and steel mills, steel companies, sinter plants, blast furnaces, basic oxygen process furnace shops.
Lead Production	331419	Primary lead smelting and refining facilities.
	331492	Secondary lead smelting and refining facilities.
Lime Production	327410	Calcium oxide, calcium hydroxide, dolomitic hydrates manufacturing facilities.
Nitric Acid Production	325311	Nitric acid production facilities
Petrochemical Production	32511	Ethylene dichloride production facilities.
	325199	Acrylonitrile, ethylene oxide, methanol production facilities.
	325110	Ethylene production facilities.
	325182	Carbon black production facilities.
Petroleum and Natural Gas Systems [1].	486210	Pipeline transportation of natural gas.
	221210	Natural gas distribution facilities.
	211	Extractors of crude petroleum and natural gas.
	211112	Natural gas liquid extraction facilities.
Petroleum Refineries	324110	Petroleum refineries.
Phosphoric Acid Production	325312	Phosphoric acid manufacturing facilities.
Pulp and Paper Manufacturing	322110	Pulp mills.
	322121	Paper mills.
	322130	Paperboard mills.
Silicon Carbide Production	327910	Silicon carbide abrasives manufacturing facilities.
Soda Ash Manufacturing	325181	Alkalies and chlorine manufacturing facilities.
	212391	Soda ash, natural, mining and/or beneficiation.
Titanium Dioxide Production	325188	Titanium dioxide manufacturing facilities.
Zinc Production	331419	Primary zinc refining facilities.
	331492	Zinc dust reclaiming facilities, recovering from scrap and/or alloying purchased metals.
	311411	Frozen fruit, juice and vegetable manufacturing facilities.
	311421	Fruit and vegetable canning facilities.
Wastewater Treatment [1]	322110	Pulp mills.
	322121	Paper mills.
	322122	Newsprint mills.
	322130	Paperboard mills.
	311611	Meat processing facilities.
	311411	Frozen fruit, juice and vegetable manufacturing facilities.
	311421	Fruit and vegetable canning facilities.
	325193	Ethanol manufacturing facilities.

[1] The EPA is not proposing amendments related to these categories; however, these categories were evaluated in the EPA's analysis of the potential impact from the release of inputs to emission equations for which reporting was deferred to March 31, 2015. Refer to Section 1.B of this preamble for further discussion of this evaluation.

Table 1 of this preamble is not intended to be exhaustive, but rather provides a guide for readers regarding facilities and suppliers likely to be affected by this action. Types of facilities other than those listed in this table may also be affected by this action. To determine whether you are affected by this action, you should carefully examine the applicability criteria found in 40 CFR part 98, subpart A or the relevant criteria in the subparts. If you have questions regarding the applicability of this action to a particular facility or supplier, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Many facilities that are affected by 40 CFR part 98 have GHG emissions from multiple source categories listed in Table 1 of this preamble.

Acronyms and Abbreviations. The following acronyms and abbreviations are used in this document.

BAMM Best Available Monitoring Methods
CAA Clean Air Act
CO_2 carbon dioxide
CBI confidential business information
CEMS Continuous Emission Monitoring System
CFR Code of Federal Regulations
e-GGRT Electronic Greenhouse Gas Reporting Tool
EPA U.S. Environmental Protection Agency
FR Federal Register
GHG greenhouse gas
GHGRP Greenhouse Gas Reporting Program
HCFC–22 chlorodifluoromethane
HFC hydrofluorocarbons
HQ Headquarters
ICR Information Collection Request
MW megawatt
NAICS North American Industry Classification System
NTTAA National Technology Transfer and Advancement Act
OMB Office of Management & Budget
RFA Regulatory Flexibility Act
UMRA Unfunded Mandates Reform Act
U.S. United States
WWW Worldwide Web

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I. Executive Summary and Background

A. Executive Summary

The Greenhouse Gas Reporting Program (GHGRP) collects greenhouse gas data from 41 source categories and currently has received 2 to 3 years of data from these sources. Greenhouse gas emissions from direct emitters are calculated using a variety of methods, including direct measurement, mass balance, and the use of emission factors. Reporters not using direct measurement must use equations to calculate emissions. The inputs to these emission equations often include process or production data that are specific to each facility's operations. These inputs to emission equations play an important role in the EPA's ability to verify facility-level emissions and ensure compliance with the program.

On July 7, 2010, the EPA proposed confidentiality determinations for the majority of data elements required to be reported under the GHGRP, as well as for the majority of source categories covered by the program. In the July 7, 2010 action, the EPA proposed that data elements categorized as ''inputs to emission equations'' are emission data. The CAA precludes ''emission data'' from being treated as confidential.

Based on subsequent industry concerns regarding the potential release of data elements categorized as ''inputs to emission equations,'' the EPA deferred reporting of these data elements (see August 25, 2011 final action, 76 FR 53057) to allow the EPA to complete its evaluation of the potential impact from the public release of these data elements (see 76 FR 53060, August 25, 2011) and, if appropriate, to propose amendments to Part 98 (see 75 FR 81355, December 27, 2010). Based on the analysis conducted, today's action proposes amendments to reporting and recordkeeping requirements and an alternative verification approach for certain reporters subject to 24 subparts for which the reporting deadline for inputs to emission equations was deferred until 2015 and disclosure concerns have been identified. Proposed amendments include:

- Adding a requirement for certain reporters under 24 subparts to use an EPA-provided inputs verification tool. For these subparts, the designated inputs to emission equations for which reporting was deferred to 2015 and disclosure concerns have been identified would be entered into the tool.[1] The tool would calculate the emissions and perform electronic verification. The tool would not retain the entered inputs (i.e., the inputs would not be reported to EPA); instead, the tool would conduct certain checks (e.g., accuracy of the inputs) at the time of data entry and generate a verification summary. The verification summary, which would be accessible to the EPA once the annual report is submitted, would provide the EPA with information to conduct further verification if necessary.
- For reporters required to use the inputs verification tool, changing the required format for maintaining records of these inputs to emission equations.
- For reporters required to use the inputs verification tool, lengthening the record retention period from 3 to 5 years for all records maintained under Part 98 (including subparts that do not require the use of the tool).
- For certain reporters required to use the inputs verification tool, adding new data elements to be reported for the EPA's verification purposes, and proposing confidentiality

[1] Under this proposal, the inputs verification tool would not be required to be used by reporters for any reported GHG for which the reporter uses a CEMS or an EPA-approved alternative method (as allowed under sections 98.33(a)(5), 98.53(a)(2), and 98.223(a)(2) of Part 98) to calculate the reported GHG value, rather than using ''inputs to equations'' data elements and the associated EPA-provided calculation methodologies to calculate the reported GHG value.

determinations for the new data elements proposed to be reported.

• For reporters required to use the inputs verification tool, removing the requirement to report the inputs to emission equations for which reporting was deferred to 2015 and disclosure concerns have been identified, and requiring these data to be kept as records.

Reporting requirements for inputs to equations for which disclosure concerns were not identified (and would still be useful to the EPA) are not proposed to be amended in this action. For these inputs to equations, the deferral would expire in March 2015, and the EPA would collect these data.

The proposed changes in this action build on the EPA's experience and success with electronic reporting and verification during the first 3 years of the GHGRP. By requiring the use of the inputs verification tool, which would calculate GHG emissions based on the inputs to the emissions equations, the EPA would have the ability to identify facilities that potentially reported emissions incorrectly. This, combined with additional verification checks of the inputs to emission equations that the inputs verification tool would conduct (during the process of reporters entering data into the inputs verification tool), would provide the EPA with information necessary to conduct further verification once the annual report is submitted. This alternative verification approach, including the changes to the recordkeeping requirements and additional reporting requirements, would provide an alternative to collecting certain data elements for which reporting was deferred to March 31, 2015 and disclosure concerns have been identified, while maintaining the EPA's ability to verify data and ensure compliance with the GHGRP.

B. Background

On October 30, 2009, the EPA published the Greenhouse Gas Reporting Rule, 40 CFR part 98, requiring annual reporting of GHG data from a broad range of industry sectors (74 FR 56260). Under the Greenhouse Gas Reporting Rule and its subsequent amendments (hereinafter referred to as ''Part 98''), the EPA requires annual reporting of data from certain facilities and suppliers above specified emission or quantity supplied thresholds. On July 7, 2010 (75 FR 39094) and subsequent proposals (77 FR 1434, January 10, 2012; and 77 FR 10434, February 22, 2012), we proposed confidentiality determinations for the data elements required to be reported. The confidentiality of each reported data element was determined using a two-step approach: (1) Grouping data elements into 11 data categories (e.g., inputs to emission equations, emissions, and unit/process operating characteristics that are not inputs to emission equations for direct emitter source categories); and (2) making confidentiality determinations either categorically or on an individual data elements basis. Refer to both the July 7, 2010 proposal (75 FR 39097) and the May 26, 2011 final rule (76 FR 30785—30786) for more detailed descriptions of this process. Refer to the May 26, 2011 final rule also for a discussion of individual data element confidentiality determinations. We have finalized confidentiality determinations for data elements except those in the ''inputs to emission equations'' category (May 26, 2011, 76 FR 30782; August 13, 2012, 77 FR 48072; and August 24, 2012, 77 FR 51477).[2] For data elements in this category, we proposed that they meet the definition of ''emission data'' under 40 CFR 2.301(a)(2)(i). Because emission data are not entitled to confidential treatment under section 114(c) of the Clean Air Act, we did not evaluate whether such data elements would qualify as CBI, including whether disclosure would likely cause substantial competitive harm to the reporting facilities (75 FR 39105 and 39108, July 7, 2010).

Following our proposal that data elements assigned to the ''inputs to emission equations'' category are not entitled to confidential treatment, we received numerous industry comments asserting that competitive harm would result from public release of many of these data elements. We determined that ''these concerns warranted an in-depth evaluation of the potential impact from the release of inputs to emission equations.'' (76 FR 53060, August 25, 2011). In a notice dated December 27, 2010, we issued a call for information (75 FR 81354) requesting additional information to assist us in conducting our evaluation. To allow sufficient time to complete this evaluation through notice and comment, we deferred the reporting deadline for data elements assigned to the ''inputs to emission equation'' category. Reporting of certain of these data elements was deferred to March 31, 2013, as specified in Table A–6 to subpart A; and reporting of the remainder of these data elements was deferred to March 31, 2015, as specified in Table A–7 to subpart A (see the August 25, 2011 final rule, 76 FR 53057).

Our process for evaluating competitive harm was documented in the final deferral notice (76 FR 53057, August 25, 2011) and the accompanying memorandum entitled ''Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations'' (Docket ID EPA–HQ–OAR–2010–0929). As discussed in the final deferral notice and memorandum, our evaluation involved a four-step process, as follows:

• Step 1: Determine whether each data element assigned to the ''inputs to emission equations'' category is already publicly available.

• Step 2: For data elements assigned to the ''inputs to emission equations'' category that are not publicly available, evaluate whether disclosure of the information is likely to result in substantial competitive harm.

• Step 3: For data elements assigned to the ''inputs to emission equations'' category that are likely to cause substantial competitive harm if disclosed, evaluate potential alternative calculation methods.

• Step 4: For data elements assigned to the ''inputs to emission equations'' category that are likely to cause substantial competitive harm if disclosed, evaluate potential alternative verification methods.

Based on each step of the four-step evaluation process, an analysis of all data elements for which reporting was deferred to March 31, 2015 was conducted.[3] The results of the analysis are documented in four memoranda, as follows:

• ''Evaluation of Public Availability of Inputs to Emission Equations for which Reporting was Deferred to March 31, 2015.''

• ''Evaluation of Competitive Harm from Disclosure of 'Inputs to Equations' Data Elements Deferred to March 31, 2015.''

• ''Evaluation of Alternative Calculation Methods.''

• ''Evaluation of Alternative Verification Approaches For

[2] There are a small number of data elements (besides data elements categorized as ''inputs to emission equations'') for which we have not made a final confidentiality determinations because we concluded that a determination of confidentiality for the data element should be made on a case-by-case facility basis (according to individual circumstances of the facility).

[3] Based on the same four-step process, we also evaluated all data elements for which reporting was deferred to March 31, 2013 (Table A–6 to Part 98) and took no further action. As a result, applicable facilities were required to report these data by April 1, 2013. For a discussion of this evaluation, refer to the EPA's memorandum ''Summary of Evaluation of Greenhouse Gas Reporting Program (GHGRP) Part 98 ''Inputs to Emission Equations'' Data Elements Deferred Until 2013'' (December 17, 2012), available at *http://www.epa.gov/ghgreporting/documents/pdf/2012/documents/2013-inputs-memo.pdf.*

Greenhouse Gas Reporting Rule Subparts for which Reporting of Inputs to Emission Equations was Deferred to March 31, 2015.''

These memoranda are available in EPA docket ID No. EPA–HQ–OAR–2010–0929. Based on the results of these analyses, the EPA is proposing in today's action to make certain amendments to Part 98.

C. Subparts Covered in This Proposed Rule

The proposed amendments affect all subparts listed in Table 2 of this preamble. Table 2 includes most of the subparts of Part 98 with inputs to emission equations for which the reporting deadline was deferred until 2015. Subpart W (Petroleum and Natural Gas Systems), subpart II (Industrial Wastewater Treatment), and subpart C (only certain combustion units associated with certain electric generators connected and able to deliver power to the local or regional electric power grid, as specified in Table 2) are not included in Table 2 because none of the inputs to emission equations required to be reported by reporters in these source categories are being amended, as no disclosure concerns were identified. Subpart I is not included in Table 2 because reporting of inputs to emission equations under this subpart was addressed under a separate rulemaking proposed on October 16, 2012 (77 FR 63538). Additionally, parts of these proposed rule amendments would affect subparts not listed in Table 2. Specifically, for reporters subject to both a subpart listed in Table 2 and a subpart of Part 98 not listed in this table, the proposed revision to the recordkeeping duration would apply to the records required for all Part 98 subparts (to which the reporter is subject). Refer to Sections II.C and III.B of this preamble for further discussion of this proposed amendment.

TABLE 2—SUBPARTS AFFECTED BY THE PROPOSED AMENDMENTS[1] [2]

Subpart	
C—General Stationary Fuel Combustion except Specified Stationary Fuel Combustion Sources Connected to Certain Electric Generators that are Connected and Able to Deliver Power to the Local or Regional Electric Power Grid[3]	S—Lime Manufacturing.
E—Adipic Acid Production	U—Miscellaneous Uses of Carbonate.
F—Aluminum Production	V—Nitric Acid Production.
G—Ammonia Manufacturing	X—Petrochemical Production.
H—Cement Production	Y—Petroleum Refineries.
K—Ferroalloy Production	Z—Phosphoric Acid Production.
L—Fluorinated Gas Production	AA—Pulp and Paper Manufacturing.
N—Glass Production	BB—Silicon Carbide Production.
O—HCFC–22 Production and HFC–23 Destruction	CC—Soda Ash Manufacturing.
P—Hydrogen Production	EE—Titanium Dioxide Production.
Q—Iron and Steel Production	GG—Zinc Production.
R—Lead Production	TT—Industrial Waste Landfills.

[1] Certain proposed amendments affect other subparts not listed in this table as follows: for reporters subject to both a subpart listed in this table and a subpart of Part 98 not listed in this table, the proposed revision to the recordkeeping duration would apply to the records required for all Part 98 subparts to which the reporter is subject.

[2] Under this proposal, the inputs verification tool would not be required to be used by reporters for any reported GHG for which the reporter uses a CEMS or an EPA-approved alternative method (as allowed under 40 CFR 98.33(a)(5), 98.53(a)(2), and 98.223(a)(2)) to calculate the reported GHG value, rather than using ''inputs to equations'' data elements and the associated EPA-provided calculation methodologies to calculate the reported GHG value.

[3] The stationary fuel combustion sources (e.g., individual units, aggregations of units, common pipes, or common stacks) not affected by the proposed amendments include those meeting both of the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators connected to combustion units that are subject to 40 CFR part 98, subpart D); and (2) the stationary fuel combustion source is located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output. Refer to Section III.A.3 of this preamble for a discussion of the EPA's rationale for proposing that combustion units meeting these criteria not be affected by the proposed amendments.

D. Legal Authority

The EPA is proposing these rule amendments under its existing CAA authority provided in CAA section 114. As stated in the preamble to the 2009 final GHG reporting rule (74 FR 56260, October 30, 2009), CAA section 114(a)(1) provides the EPA broad authority to require the information proposed to be gathered by this rule because such data would inform and are relevant to the EPA's carrying out a wide variety of CAA provisions. See the preambles to the proposed (74 FR 16448, April 10, 2009) and final Part 98 (74 FR 56260, October 30, 2009) for further information.

In addition, pursuant to sections 114, 301, and 307 of the CAA, the EPA is proposing confidentiality determinations for the new data elements proposed in this notice. Section 114(c) of the CAA requires that the EPA make publicly available information obtained under CAA section 114 except for information (excluding emission data) that qualifies for confidential treatment. The Administrator has determined that this action (Part 98 amendment and confidentiality determinations) is subject to the provisions of CAA section 307(d).

II. Summary of Proposed Changes to Part 98 Reporting and Recordkeeping Requirements

The EPA is proposing revisions to the reporting and recordkeeping requirements in Part 98 and alternative verification procedures that would apply to certain reporters subject to any of the 24 subparts listed in Table 2 of this preamble. Section II.A of this preamble summarizes a proposed new requirement for these reporters if they use inputs to emission equations for which reporting was deferred to March 31, 2015 (hereafter referred to as ''inputs to equations'' data elements) to calculate reported GHGs. Such reporters would be required to use an EPA-provided electronic inputs verification tool to

calculate emissions using ''inputs to equations'' data elements, allowing the EPA to complete electronic verification of reported GHG emissions data without the need to collect ''inputs to equations'' data elements for which disclosure concerns have been identified. Section II.B of this preamble summarizes the EPA's proposal to remove, for these reporters, the requirement to report many ''inputs to equations'' data elements. Section II.C of this preamble summarizes proposed revisions to the recordkeeping requirements for these reporters. Section II.D of this preamble summarizes proposed new reporting requirements for these reporters. Section III of this preamble explains the rationale for the proposed amendments summarized in Sections II.A through II.D of this preamble. Section IV of this preamble presents the EPA's proposed confidentiality determinations for proposed new data elements and the EPA's rationale for these determinations. Section V of this preamble presents the cost and impacts associated with these proposed amendments.

A. Proposed Use of Inputs Verification Tool

The EPA is proposing that facilities subject to the subparts listed in Table 2 of this preamble and that use ''inputs to equations'' data elements to calculate reported GHGs use an electronic inputs verification tool being developed by the EPA, which would calculate and verify GHG emissions. Refer to Section III.A.1 of this preamble for a web-link to the EPA's ''pilot'' inputs verification tool for one subpart of Part 98, available during the public comment period for this rulemaking. The ''pilot'' demonstrates how the tool would work within the EPA's Electronic Greenhouse Gas Reporting Tool (e-GGRT), as well as the types of verification checks that would be conducted. The inputs verification tool would be deployed within e-GGRT and would be integrated without interrupting the current electronic reporting process. While reporters enter data into e-GGRT that are required to be reported in the annual report, reporters would also enter into e-GGRT (via the inputs verification tool) the ''inputs to equations'' data elements that the EPA is proposing to remove from the reporting requirements. The tool would use the entered ''inputs to equations'' data elements to calculate the equation outputs, conduct electronic verification checks on the ''inputs to equations'' data elements, and generate a verification summary. The tool would not retain the entered ''inputs to equations'' data elements for which the EPA is proposing that the reporting requirement be removed. Accordingly, the EPA would not have access to these ''inputs to equations'' data elements. Instead, the EPA would rely on the verification summary, which would become accessible to the EPA when annual reports are submitted, as a first step for conducting verification once the annual report is submitted.

Sources subject to multiple subparts under Part 98 would be required to use the inputs verification tool for only those subparts listed in Table 2 of this preamble. The EPA is proposing that reporters use this tool starting with reporting year 2014. Refer to Section III.A of this preamble for further discussion of this proposed requirement.

This proposed requirement to use the inputs verification tool is specified in 40 CFR 98.5, subpart A. Reporters would determine applicability under this new requirement based on a proposed new Table A–8 to Subpart A, which lists all calculation methods under Part 98 for which the inputs verification tool must be used. Reporters calculating reported GHGs using a calculation method specified in proposed Table A–8 would be required to enter into the inputs verification tool ''inputs to equations'' data elements that have been removed from the reporting requirements.

B. Proposed Revisions to Reporting of Data Elements Deferred Until 2015

The EPA is proposing to remove the reporting requirement for 440 ''inputs to equations'' data elements in the subparts listed in Table 2 of this preamble. Table 3 of this preamble provides a summary of how many data elements would be removed from reporting for each subpart. Refer to Table 1 in the memorandum ''List of 'Inputs to Equations' Data Elements Proposed Not To Be Reported'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929) for a complete list of these 440 data elements. For all remaining ''inputs to equations'' data elements not represented in Table 3 of this preamble, the EPA is not amending these reporting requirements and would, therefore, let the deferral of these data elements expire on March 31, 2015. As a result, by March 31, 2015, all of the ''inputs to equations'' data elements for subpart W (Petroleum and Natural Gas Systems), subpart II (Industrial Wastewater Treatment), and the additional ''inputs to equations'' data elements for which reporting is not proposed to be removed as indicated in Table 3 of this preamble, would be reported for future reporting years and for all prior reporting years, including reporting year 2014. For a list of these ''inputs to equations'' data elements that would be reported, refer to Table 2 of the memorandum cited above.

TABLE 3—SUBPARTS FOR WHICH REPORTING REQUIREMENTS ARE AMENDED

Subpart	Number of ''inputs to equations'' data elements	Number of ''inputs to equations'' data elements proposed not to be reported
C—General Stationary Fuel Combustion Except Specified Stationary Fuel Combustion Sources Connected to Certain Electric Generators Connected and Able to Deliver Power to the Local or Regional Power Grid[2]	[1] 26	[1] 26
E—Adipic Acid Production	21	11
F—Aluminum Production	29	29
G—Ammonia Manufacturing	8	8
H—Cement Production	16	14
K—Ferroalloy Production	13	13
L—Fluorinated Gas Production	55	46
N—Glass Production	3	3
O—HCFC–22 Production and HFC–23 Destruction	15	12
P—Hydrogen Production	7	7
Q—Iron and Steel Production	93	92
R—Lead Production	10	10
S—Lime Manufacturing	9	9

TABLE 3—SUBPARTS FOR WHICH REPORTING REQUIREMENTS ARE AMENDED—Continued

Subpart	Number of "inputs to equations" data elements	Number of "inputs to equations" data elements proposed not to be reported
U—Miscellaneous Uses of Carbonate	6	6
V—Nitric Acid Production	21	6
X—Petrochemical Production	21	21
Y—Petroleum Refineries	80	75
Z—Phosphoric Acid Production	4	4
AA—Pulp and Paper Manufacturing	31	28
BB—Silicon Carbide Production	3	3
CC—Soda Ash Manufacturing	10	4
EE—Titanium Dioxide Production	2	2
GG—Zinc Production	8	8
TT—Industrial Waste Landfills	3	3

[1] Includes one "inputs to equations" data element, 40 CFR 98.3(d)(3)(v), which is specified in subpart A of Part 98 and applies to only certain reporters under 40 CFR part 98, subpart C.

[2] The reporting requirements applicable to certain stationary fuel combustion sources (e.g., individual units, aggregations of units, common pipes, or common stacks) subject to 40 CFR part 98, subpart C remain the same under the proposed amendment. Subpart C would continue to require reporting of all applicable "inputs to equations" data elements for stationary fuel combustion sources that meet both of the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators connected to combustion units that are subject to 40 CFR part 98, subpart D); and (2) the stationary fuel combustion source is located at a facility for which the sum of the combined nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output. Subpart C reporters would not report "inputs to equations" data elements for all other types of stationary fuel combustion sources subject to subpart C.

In order to ease the burden for facilities, the EPA is proposing that the "inputs to equations" data elements that are not being amended in this action (and therefore would be reported for reporting years prior to reporting year 2014) be reported as part of the annual report for reporting year 2014. Specifically, when reporters prepare their reporting year 2014 annual report via e-GGRT, they would be required to include these "inputs to equations" data elements for reporting year 2014 as well as for all applicable previous reporting years. The annual report, including these "inputs to equations" data elements that would still be reported, would be submitted via e-GGRT. This proposed approach would prevent facilities from being required to revise, re-certify, and re-submit annual reports for each previous reporting year.

C. Proposed Changes to Recordkeeping Requirements

For each facility subject to a subpart listed in Table 2 of this preamble that uses "inputs to equations" data elements to calculate and report GHGs (i.e., subject to using the proposed inputs verification tool), the EPA is proposing that the facility retain all records, including records for subparts not subject to the inputs verification tool requirement, for 5 years, rather than the current 3-year record retention period. In other words, if any facility subject to using the proposed inputs verification tool is also subject to a subpart of Part 98 not listed in Table 2, we propose that records required for those other subparts also be maintained for the 5 years. For example, if such a facility is required to report under both subpart C (in Table 2) and subpart HH (not in Table 2), the facility would be required to maintain all records required under both subparts for 5 years following submittal of the annual report. The EPA is proposing that this 5-year record retention requirement begin with records for reporting year 2010.

Additionally, we are proposing that, at the time a reporter subject to using the proposed inputs verification tool completes entry of all "inputs to equations" data elements into the tool, the reporter would be required to keep a file generated by the tool that lists the entered "inputs to equations" data elements. The reporter would be required to maintain a copy of the file as a record of the entered inputs. As currently required in 40 CFR 98.3(g), subpart A, this file may be maintained in electronic or hard copy format. As discussed above, this record would be required to be maintained for 5 years.

Refer to Section III.B of this preamble for further discussion of these proposed recordkeeping requirements.

D. Proposed New Data Elements To Be Reported

The EPA is proposing that reporters subject to using the proposed inputs verification tool in subparts E, G, H, P, Q, S, V, X, Y, and AA of Part 98, be required to report the additional data elements listed per subpart in Table 4 of this preamble. Proposed confidentiality determinations for these proposed data elements are presented in Section IV of this preamble.

TABLE 4—PROPOSED NEW DATA ELEMENTS FOR SUBPARTS E, G, H, P, Q, S, V, X, Y, AND AA OF PART 98

Subpart	Subpart name	New data element description
E	Adipic Acid Production	Annual quantity of cyclohexane fed to all production lines (metric tons). Annual percent N_2O emission reduction for all production units combined.
G	Ammonia Production	Annual ammonia production (metric tons). Annual methanol production (metric tons), if this quantity is not reported under subpart X.
H	Cement Production	Annual clinker production (metric tons). Annual average clinker CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton clinker produced). Annual average cement kiln dust (CKD) CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton CKD produced).

TABLE 4—PROPOSED NEW DATA ELEMENTS FOR SUBPARTS E, G, H, P, Q, S, V, X, Y, AND AA OF PART 98—Continued

Subpart	Subpart name	New data element description
P	Hydrogen Production	Name and annual quantity (metric tons) of each carbon-containing fuel and feedstock.
		Annual methanol production (metric tons), if this quantity is not reported under subpart X.
Q	Iron and Steel Production	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all gaseous, liquid, and solid fuels (combined) used in process units specified in Equations Q–1 through Q–7 of subpart Q, calculated as specified in a proposed new Equation Q–9 of subpart Q in the proposed rule amendments. Do not include fuel used in a stationary combustion unit where emissions are reported under subpart C.
		If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all non-fuel material inputs (combined) specified in Equations Q–1 through Q–7 of subpart Q, calculated as specified in a proposed new Equation Q–10 of subpart Q in the proposed rule amendments.
		If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all solid and liquid products and byproducts (combined) specified in Equations Q–1 through Q–7 of subpart Q, calculated as specified in a proposed new Equation Q–11 of subpart Q in the proposed rule amendments.
		If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all gaseous, liquid, and solid fuels (combined) included in proposed new Equation Q–9 of subpart Q, calculated as specified in a proposed new Equation Q–12 of subpart Q in the proposed rule amendments.
		If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all non-fuel inputs to all furnaces (combined) included in proposed new Equation Q–10 of subpart Q, calculated as specified in a proposed new Equation Q–13 of subpart Q in the proposed rule amendments.
		If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all solid and liquid products and byproducts from all furnaces (combined) included in a proposed new Equation Q–11 of subpart Q in the proposed rule amendments, calculated as specified in new Equation Q–14 of subpart Q.
S	Lime Manufacturing	Annual quantity (metric tons) of lime product sold, by type.
V	Nitric Acid Production	Annual percent N_2O emission reduction for all production units combined.
X	Petrochemical Production	If using the mass balance method or CEMS method to calculate GHG emissions: Name and annual quantity (in metric tons) of each carbon-containing feedstock.
		If using the mass balance method or CEMS method to calculate GHG emissions: Name and annual quantity (in metric tons) of each carbon-containing co-product.
Y	Petroleum Refineries	Annual quantity of flare gas combusted (in MMscf per year) (only when using Equation Y–3 of subpart Y).
		Annual average molecular weight of flare gas combusted (in mmBtu per MMscf) (only when using Equation Y–3 of subpart Y).
		Annual average carbon content of flare gas combusted (expressed as a decimal fraction)(only when using Equation Y–3 of subpart Y).
AA	Pulp and Paper Manufacturing	For each pulp mill lime kiln: Quantity of calcium oxide (CaO) produced (metric tons).
		For each pulp mill lime kiln: Percent of annual heat input, individually for each fossil fuel type.
		For each chemical recovery furnace and chemical recovery combustion unit for which you are not using Equation C–2c of subpart C to calculate CO_2 emissions: Annual mass of steam generated (lb steam), individually for each fossil fuel type and for spent liquor solids.
		For each chemical recovery furnace and chemical recovery combustion unit for which you are not using Equation C–2c of subpart C to calculate CO_2 emissions: Ratio of the unit's maximum rated heat input capacity to its design rated steam output capacity (mmBtu/lb steam), individually for each fossil fuel type and for spent liquor solids.

III. Rationale for Proposed Changes to Reporting and Recordkeeping Requirements

Based on the four-step evaluation described in Section I.B of this preamble, in particular the disclosure concerns discussed in ''Step 2'' of the evaluation and the alternatives considered in ''Step 3'' and ''Step 4'' of the evaluation to address those disclosure concerns, the EPA is proposing an alternative verification approach. This approach involves use of an inputs verification tool and revisions to the reporting and recordkeeping requirements of Part 98. The EPA's rationale for this approach is presented in Sections III.A through C below. Section III.A addresses the proposed inputs verification tool and revisions to the requirement to report certain ''inputs to equations'' data elements. Section III.B addresses the proposed revisions to recordkeeping requirements. Section III.C addresses the proposed addition of new reporting requirements.

A. Proposed Inputs Verification Tool and Amendment to Reporting Requirements

The EPA is proposing that facilities using ''inputs to equations'' data elements to calculate reported GHGs under the subparts listed in Table 2 of this preamble use an EPA-provided electronic inputs verification tool, which would calculate and verify GHG emissions. The inputs verification tool would be deployed within e-GGRT and integrated without interrupting the current electronic reporting process. Reporters would enter their ''inputs to equations'' data elements into the tool within the e-GGRT system along with the data required to be reported in the annual report (concurrent entry of ''inputs to equations'' data elements and data required for the annual report would be required starting in reporting year 2014, as further discussed in Section III.A.2 of this preamble). As a

built-in feature of the e-GGRT system, the tool would use the entered ''inputs to equations'' data elements to calculate the equation outputs, conduct electronic verification checks on the ''inputs to equations'' data elements, and generate a verification summary. The tool would not retain the entered ''inputs to equations'' data elements for which the EPA is proposing that the reporting requirement be removed.[4] Accordingly, unlike data currently reported to the EPA through e-GGRT, the EPA would not have access to these ''inputs to equations'' data elements.

Any such sources subject to multiple subparts under Part 98 would be required to use the tool for only those subparts listed in Table 2 of this preamble, as discussed in the following section.

1. Detailed Description of Inputs Verification Tool

The EPA's current verification approach consists of electronic verification checks followed by direct follow-up with facilities. For subparts where the reporting of inputs to emission equations has been deferred until 2015, these checks have been conducted using reported data other than inputs to emission equations (the reporting of which was deferred). For ''supplier'' subparts[5] (and starting in reporting year 2012 for subparts with inputs to emission equations that were deferred until 2013), these checks have been conducted using reported data that include the data needed to calculate outputs of the equations. Reporters under the supplier subparts have been entering into e-GGRT the data needed to calculate the annual GHG quantities. For reporters under the direct emitter subparts listed in Table 2 of this preamble that are using ''inputs to equations'' data elements to calculate reported GHGs, the EPA is proposing to use an approach similar to that currently used for the supplier subparts, where ''inputs to equations'' data elements would be entered into the inputs verification tool within e-GGRT and used to calculate the annual GHG emission values and verify these emission values. The difference, however, is that these ''inputs to equations'' data elements would be entered into this new inputs verification tool within e-GGRT and would not be reported to the EPA.

To access the inputs verification tool, reporters would log into e-GGRT. They would enter data elements required for the annual report as well as their ''inputs to equations'' data elements. The tool would operate securely within e-GGRT, as a transient process, which means that ''inputs to equations'' data elements (for which the EPA is proposing that the reporting requirement be removed) entered into the tool would be temporarily saved in the tool while the reporter is actively using the tool, but would not be persisted (i.e., saved) within the e-GGRT database. The ''inputs to equations'' data elements would be discarded when the user's session with e-GGRT ends. Refer to the memorandum ''Technical Approach and Design for Inputs Verification Tool'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929) for a detailed description of EPA's technical approach and design for the inputs verification tool. The memorandum describes how the inputs verification tool would use entered data only during the reporters' e-GGRT session and would delete all records of entered data when the reporters exits the system.

If the reporter exits the inputs verification tool prior to completing data entry or submitting their annual report, the tool would generate a file of entered ''inputs to equations'' data elements, and allow the reporter to download the file. This file could then be uploaded into the tool when the reporter next uses the tool to continue with data entry for the same reporting year. This would avoid facilities from needing to re-enter ''inputs to equations'' data elements that were entered in previous e-GGRT sessions.

After the reporter enters the ''inputs to equations'' data elements into the inputs verification tool, the tool would calculate the annual GHG emissions values. The tool would use the following information in calculating these values: (1) ''Inputs to equations'' data elements (for which reporting under this action is proposed to be removed) entered into the tool, (2) ''inputs to equations'' data elements entered into e-GGRT (not into the inputs verification tool) (refer to Section III.A.3 of this preamble for a discussion of the ''inputs to equations'' data elements that would still be reported under this proposal), (3) information entered into e-GGRT identifying which Part 98 calculation method was selected (if applicable), and (4) the selected Part 98 calculation method. Once the annual GHG emissions values are calculated, the values would be pre-filled into the appropriate reporting fields within e-GGRT. Reporters would then have the opportunity to override the annual GHG emissions values calculated by the tool with their own calculated value. If the reporter chose to override the calculated value, this would be reflected in the verification summary.

Prior to annual report submittal, the inputs verification tool would conduct a series of verification checks, including the following:

- Verification checks on the annual GHG emission values calculated by the inputs verification tool. As mentioned above, reporters would have the opportunity to override and revise the value calculated by the tool; however should this occur, the tool would note a discrepancy, which would prompt the EPA for further review after the reporter submits the annual report.
- Verification checks on entered ''inputs to equations'' data elements. For example, the tool would check: (1) Whether all required data were entered; (2) whether entered ''inputs to equations'' data element values are within the expected ranges for the data elements; and (3) whether expected relationships exist between certain ''inputs to equations'' data elements and certain other reported data elements (e.g., process raw material or throughput data that are not ''inputs to equations'' data elements).

Some of these checks would be conducted as the reporter enters ''inputs to equations'' data elements (i.e., using ''real-time'' checking), and other checks would be conducted after the reporter has entered all ''inputs to equations'' data elements, because some algorithms may compare certain ''inputs to equations'' data elements (e.g., production quantity) to GHG emission values at the subpart or facility level.

Also, prior to submittal of the annual report, the inputs verification tool would generate a verification summary containing the results of the verification checks. The verification summary would specify whether any potential errors, as described above, were identified, without specifying the ''inputs to equations'' data elements. The reporter would have an opportunity to review the verification summary and make necessary revisions to the entered ''inputs to equations'' data elements and the reported data elements.

For example, a facility subject to subpart G that manufactures ammonia using liquid and solid feedstocks is currently required under 40 CFR 98.76(b)(1) to report annual CO_2 process emissions for each ammonia manufacturing unit. Currently, the

[4] Please see section III.A.3 of this preamble for a discussion on which ''inputs to equations'' data elements the EPA is proposing that the reporting requirements be removed.

[5] Supplier subparts (subparts LL through PP of Part 98) apply to fossil fuel suppliers and industrial gas suppliers. The e-GGRT system currently calculates equation outputs for suppliers using reported equations inputs. Subpart MM reporters began using e-GGRT for reporting in Reporting Year 2012.

reporter calculates this reported annual GHG emissions value outside of e-GGRT (e.g., using a calculator or computer software), using Equations G–2, G–3, and G–4 of Part 98, and monthly values for the following ''inputs to equations'' data elements: Quantity of liquid feedstock, quantity of solid feedstock, carbon content value for liquid feedstock, and carbon content value for solid feedstock. We are proposing that the reporter instead calculate this reported annual GHG emissions value using the inputs verification tool, which not only would use the same equations and data for calculation, but would also conduct verification checks, as follows:

• The reporter would enter all 48 ''inputs to equations'' data elements into the inputs verification tool (i.e., monthly values for all four ''inputs to equations'' data elements).

• The reporter would use the inputs verification tool to calculate annual CO_2 process emissions. In calculating this value, the tool would use Equations G–2, G–3, and G–4 of Part 98 and the 48 ''inputs to equations'' data element entries.

• Once the annual CO_2 process emissions value is calculated, the inputs verification tool would automatically conduct verification checks on the 48 entered ''inputs to equations'' data elements. For example, the tool might conduct the following checks:

—Real-time checks that all 48 ''inputs to equations'' data elements were entered.

—Real-time checks that each of the 12 entered values for carbon content of liquid feedstock is within the expected range for carbon content of liquid feedstock (based on industry-wide data). The tool would conduct similar comparisons for the 12 entered ''inputs to equations'' data elements for the carbon content value for solid feedstock.

—Algorithm check comparing each of the 12 entered values of the quantity of the liquid feedstock to all monthly values entered for the year, to determine if individual values are within an expected range established using all 12 values. The tool would conduct similar comparisons for the 12 entered ''inputs to equations'' data elements for the quantity of solid feedstock. This type of check would be conducted after the reporter has entered all ''inputs to equations'' data elements.

• Prior to annual report submittal, the inputs verification tool would automatically generate a verification summary, which would flag any potential errors, providing an opportunity for the reporter to review the verification summary and revise entered data. The verification summary would note if the reporter has overridden any of the annual GHG emissions values calculated by the tool. After the reporter completes all revisions to data entries, the tool would automatically re-generate the verification summary prior to annual report submittal. The EPA would access the verification summary (i.e., the same final summary viewed by the reporter) following annual report submittal and certification.

• The inputs verification tool would also generate a file listing the entered ''inputs to equations'' data elements (for which the EPA is proposing to remove the reporting requirements) to be kept by the reporter and maintained as a record in a format currently allowed under Part 98 (see 40 CFR 98.3(g), subpart A). Refer to Section III.B of this preamble for further discussion of this proposed amendment and the EPA's rationale for requiring this record.

The EPA has developed a ''pilot'' inputs verification tool for one subpart of Part 98, subpart X, which will be posted at *http://www.epa.gov/ghgreporting/reporters/training/rulepilot.html,* to demonstrate how the tool would work within e-GGRT, as well as the types of verification checks that would be conducted. The EPA seeks comment on the usability of the tool as well as its ability to conduct verification on the ''inputs to equations'' data elements. The EPA also seeks comment on additional approaches considered by the EPA for implementation of the inputs verification tool; refer to the memorandum ''Evaluation of Alternative Verification Approaches for Greenhouse Gas Reporting Rule Subparts for which Reporting of Inputs to Emission Equations was Deferred to March 31, 2015'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929) for a description of these additional approaches considered.

2. Rationale Supporting the Use of the Inputs Verification Tool as an Alternative to Collecting Certain ''Inputs to Equations'' Data Elements for Verification Purposes

In the October 30, 2009 final rule (74 FR 56282–56283), the EPA described its verification approach as the following two-step process:

• Initial automated review of reported data, using an electronic data quality assurance program built into the data system, for use by reporters and the EPA to help assure the completeness and accuracy of data.

• Based on the initial review results, follow up with facilities regarding potential errors, discrepancies, or questions, including on-site audits.

The EPA is currently using the two-step verification process of automated verification checks followed by direct follow-up with facilities to verify data currently reported via e-GGRT. The EPA is proposing to supplement the current verification approach for facilities using ''inputs to equations'' data elements to calculate reported GHGs under the subparts listed in Table 2 of this preamble using the additional checks that would be conducted by the inputs verification tool. During the first 3 years of the GHGRP, the EPA has had success developing and using an electronic reporting and verification system for all subparts reporting under the program. During reporting year 2010, the EPA developed approximately 1,400 electronic verification checks to verify reported data. Based on these verification checks, the EPA followed up with approximately 2,360 of the approximately 6,700 facilities that reported in reporting year 2010, resulting in approximately 2,300 facilities resolving verification issues by responding to the EPA and/or resubmitting their annual report. In reporting year 2011, the EPA programmed an additional 1,000 checks into e-GGRT for the subparts that were reporting for the second year, expanding the number of checks to 2,400. The EPA also programmed into e-GGRT, for 2011, approximately 1,300 checks for the newly-reporting subparts. During reporting year 2011, the EPA followed up with approximately 3,440 of the approximately 8,000 facilities that reported, resulting in approximately 3,000 facilities resolving their verification issues.

For example, for subpart H, the EPA verifies reported GHG emissions data using: (1) Reported cement production data and (2) publicly available industry data on GHG emissions. Using these data, the EPA has established ranges of acceptable production and emission values and set up algorithm checks for reported GHG emission values.

The electronic checks used by the GHGRP have served as a means for the EPA to verify reported data while minimizing the burden on both the EPA and reporters. Electronic verification is a critical first step to ensuring the completeness and accuracy of reported data and reducing the costs of compliance monitoring.

The inputs verification tool described in Section III.A.1 of this preamble utilizes the same approach that the EPA currently uses for calculating and

verifying data submitted for supplier subparts (and starting in reporting year 2012, inputs to emission equations whose reporting deadline was deferred until 2013), except that e-GGRT would not retain the ''inputs to equations'' data elements entered into the tool. Once the annual report is submitted, the EPA would review the verification summary generated by the inputs verification tool, along with verification summaries that are currently generated using data currently collected through the annual report. By requiring use of the inputs verification tool, the EPA would have the additional certainty that reported annual GHG emissions values either were calculated correctly (because the values calculated by the tool were submitted to the EPA) or that the EPA would be made aware that there were discrepancies between values calculated by the tool and values submitted to the EPA. That additional certainty, combined with the additional information provided by the range and algorithm checks on the ''inputs to equations'' data elements themselves, would provide the EPA with information necessary to conduct further verification once the annual report is submitted.

If a potential error with one of the ''inputs to equations'' data elements or with an annual GHG emissions value were identified in the verification summary generated by the inputs verification tool, the EPA would likely follow up with the facility to determine whether an actual error has occurred. While this verification approach may result in more direct follow-up with facilities than if the ''inputs to equations'' data elements were submitted to the EPA, this approach would facilitate verification by identifying potential errors and minimizing the number of errors before annual reports are submitted. In addition, as discussed elsewhere in the preamble, the EPA is retaining the reporting requirement for ''inputs to equations'' data elements for which our four-step evaluation did not identify disclosure concerns and is proposing to require reporting of additional new data elements to assist the EPA's verification effort. These ''inputs to equations'' data elements for which reporting would be retained and these proposed new reported data elements would allow the EPA to conduct additional verification and minimize the number of follow-ups with facilities. Lastly, for the reasons specified in Section III.B of this preamble, the EPA is proposing that facilities retain records for 5 years, which would allow the EPA time to perform any necessary follow-up with reporters. For the reasons stated above, the EPA has determined that the proposed verification approach would be adequate to verify the reported emissions for reporters using ''inputs to equations'' data elements to calculate reported GHGs under the subparts identified in Table 2 of this preamble and is a reasonable alternative to collecting ''inputs to equations'' data elements for which we have identified disclosure concerns.

The EPA is proposing to require the use of the inputs verification tool starting with reporting year 2014. The inputs verification tool is designed to be used concurrently with annual reporting by facilities. By the time the EPA takes any final action on this proposed amendment, reporters would likely have already submitted annual reports for reporting years 2010 through 2013. While additional verification could be conducted on the past years' data if the inputs verification tool were used for these years, given that most of the data would likely already have been published and that the use of best available monitoring methods (BAMM) for these sectors is relatively low during these years, the EPA has determined that the added benefit does not outweigh the burden that would be required for facilities to use the inputs verification tool for years prior to reporting year 2014.

3. Reporting of 440 ''Inputs to Equations'' Data Elements Would Not Be Necessary With the Proposed Verification Approach

The EPA is proposing to remove the reporting requirement for 440 ''inputs to equations'' data elements that are in the subparts listed in Table 2 of this preamble. With the proposed alternative verification approach described in Section III.A.2 of this preamble, the EPA would no longer need to rely on the collection of these ''inputs to equations'' data elements to verify emissions under those subparts. Not having these data elements reported would address concerns relative to potential disclosure of these data elements.[6] These 440 data elements are specified in Table 1 of the memorandum ''List of Inputs to Equations Data Elements Proposed Not To Be Reported'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929).

The 440 ''inputs to equations'' data elements for which the EPA is proposing to remove the reporting requirement must be maintained on-site as records. Because Part 98 already requires these ''inputs to equations'' data elements to be kept as records (see 40 CFR 98.3(g)(2), which states that ''the data used to calculate the GHG emissions for each unit, operation, process, and activity, categorized by fuel or material type'' must be kept as records), the EPA is not proposing in this action to specify each of the 440 ''inputs to equations'' data elements in the recordkeeping section of each subpart. The EPA considered whether specifying each of these ''inputs to equations'' data elements in the recordkeeping sections of each subpart would improve the clarity of the specific records that would be required to be retained. Because the EPA is proposing that the ''inputs to equations'' data elements that would not be reported must be kept as records in the format generated by the inputs verification tool (i.e., file for downloading or printing), the EPA determined that the data that must be kept as records would be sufficiently clear. The EPA seeks comment on whether additional specificity within the recordkeeping requirements of each subpart would improve the clarity of the specific records that are required to be retained.

For the purposes of clarifying which data elements must be reported for previous reporting years 2010 through 2013, we are proposing to revise Table A–7 to Subpart A to remove all 440 data elements for which reporting is proposed to be removed. The data elements that are not being removed from Table A–7 would continue to be reporting requirements, and would be reported for previous reporting years 2010 through 2013, as appropriate.

The EPA is retaining reporting of 170 ''inputs to equations'' data elements.[7] Refer to Table 2 in the memorandum ''List of 'Inputs to Equations' Data Elements Proposed Not To Be Reported'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929) for a complete list of these 170 data elements. The 170 ''inputs to equations'' data elements include certain ''inputs to equations'' data elements for the subparts listed in Table 3 of this preamble, as well as all ''inputs to equations'' data elements for subparts

[6] For 23 of these ''inputs to equations'' data elements, we are proposing to remove the reporting requirement because, while there is not a disclosure concern, the EPA determined that these data elements would not be useful for data verification and would not inform future GHG policy development in the absence of other data elements for which we are proposing to remove the reporting requirement. See section III.A.3 of this preamble for additional discussion on this topic.

[7] These 170 ''inputs to equations'' data elements include nine ''inputs to equations'' data elements in subpart L of part 98 that are not being addressed in this rulemaking because they will be addressed in a separate action related to subpart L.

C (only for specified stationary fuel combustion sources connected to certain electric generators that deliver power to the local or regional electric power grid),[8] W, and II of part 98. For these ''inputs to equations'' data elements, the EPA is not amending these reporting requirements and would therefore let the deferral of these data elements expire on March 31, 2015. As a result, these ''inputs to equations'' data elements would be reported for future reporting years starting with reporting year 2014, as well as for previous reporting years (i.e., reporting years 2010 through 2013). Based on ''Step 2'' of our evaluation described in Section I.B of this preamble, these data elements would not raise disclosure concerns. Having these data elements reported would allow the EPA to do additional verification, including conduct year-to-year comparisons, thereby reducing the amount of direct follow-up required with facilities. For the reason stated above, collecting these data elements, even in the absence of collecting all ''inputs to equations'' data elements, would aid in the verification process.

The EPA identified 23 ''inputs to equations'' data elements for which disclosure concerns were not identified based on ''Step 2'' of our evaluation; however, the EPA is not retaining these reporting requirements. The EPA determined that these 23 data elements would not be useful for data verification and would not inform future GHG policy development in the absence of other ''inputs to equations'' data elements for which the reporting requirement is proposed to be removed under this action. Examples of these 23 ''inputs to equations'' include reporting the selected default molar volume conversion factor and reporting the units of measure of a site-specific emission factor. These ''inputs to equations'' are identified in the memorandum ''List of 'Inputs to Equations' Data Elements Proposed Not To Be Reported'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929).

Regarding the 170 retained ''inputs to equations'' data elements, for reporting year 2014 and thereafter, reporters would enter the 170 ''inputs to equations'' data elements for which we are retaining the reporting requirement into e-GGRT. Starting in reporting year 2014, the e-GGRT system would retain these 170 data elements as part of the annual report and they would be accessible by the EPA once the reporter submits the annual report. In order to ease the burden on facilities, for reporting years prior to reporting year 2014, the EPA is proposing that these reported ''inputs to equations'' data elements be submitted as part of the reporting year 2014 annual report. Specifically, when reporters prepare their reporting year 2014 annual report via e-GGRT, they would be required to include these ''inputs to equations'' data elements for reporting year 2014 as well as for all applicable previous reporting years. The annual report, including these ''inputs to equations'' data elements would be submitted via e-GGRT. This approach would prevent facilities from being required to revise, re-certify, and re-submit annual reports for reporting years 2010, 2011, 2012, and 2013.

The proposed revisions to the current reporting requirements would apply to all reporters subject to the subparts listed in Table 2 of this preamble, including subpart C, and using ''inputs to equations'' data elements to calculate reported GHGs. However, as noted in Table 2, we are not proposing to amend the reporting requirements for stationary fuel combustion sources subject to subpart C (e.g., individual units, aggregations of units, common pipes, or common stacks) that meet the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators that are connected to combustion units subject to subpart D); and (2) the stationary fuel combustion source is located at a facility for which the sum of nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output. The ''inputs to equations'' data elements for these stationary fuel combustion sources are among those that did not raise disclosure concerns under ''Step 2'' of our evaluation of the ''inputs to equations'' data elements (refer to Section I.B of this preamble for a discussion of the EPA's four-step evaluation). Refer to the memoranda documenting ''Step 2'' of our evaluation, ''Evaluation of Competitive Harm From Reporting 2015 Inputs to Equations'' (Docket ID No. EPA–HQ–OAR–2010–0929), for further information on the results of the analysis for these stationary fuel combustion sources.

Reporters currently reporting emissions for stationary fuel combustion sources under subpart C have the option to utilize one or more of the reporting options under subpart C that allow the grouping of stationary combustion units for the purpose of monitoring, calculating, and reporting emissions. The EPA recognizes that stationary combustion units grouped in these reporting configurations could include both combustion units associated with electric generators (excluding generators connected to combustion units subject to subpart D) (connected to the grid and not connected to the grid) and combustion units not associated with electric generators (excluding generators connected to combustion units subject to subpart D). In these cases where combustion units are grouped, the EPA has determined that there would be no disclosure concerns with reporting of ''inputs to equations'' data elements for the grouped combustion units. In reporting combined data for multiple units including those associated with an electric generator and subject to reporting under this proposed action, no unit-specific data would be revealed. Furthermore, should a facility not wish to disclose aggregated data, it would have the option to calculate and report emissions using one of the individual unit reporting configurations. The EPA seeks comment on this conclusion. If you believe that there are any disclosure concerns, please provide detailed information about the concern, as well as whether reporting on an individual unit basis is a feasible reporting option.

Additionally, the EPA is proposing to revise two paragraphs (40 CFR 98.116(e)(6) and 40 CFR 98.186(b)(8)) that reference other paragraphs that include ''inputs to equations'' data elements proposed to be removed from Part 98. As a result, we are proposing to remove the cross reference while carrying over the substantive information in order to maintain the requirements in these paragraphs.

The EPA requests comment on the proposed inputs verification tool and verification approach, and the associated revision to the current reporting requirements as described in this section.

[8] Refers to stationary fuel combustion sources (e.g., individual units, aggregations of units, common pipes, or common stacks) subject to subpart C of Part 98 meeting both of the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators connected to combustion units that are subject to subpart D of this part); and (2) the stationary fuel combustion source is located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output.

B. Proposed Revisions to Recordkeeping Requirements

Given the proposed verification approach described in Section III.A of this preamble, the EPA considered whether the current record retention period and record format requirements would be sufficient to allow the EPA to perform data verification. We considered:

- The time we would need to follow up with reporters to further verify reported GHG emissions.
- The desirability of retaining multiple years of data records to allow for appropriate assessment of compliance and for analyses of trends for policy analysis purposes.
- The format of records, and whether the current format would be adequate for our verification process. For example, we considered whether records of ''inputs to equations'' data elements contained in multiple separate documents (as currently allowed under Part 98) would allow an EPA inspector to efficiently analyze the consistency of the data elements and use the data elements to perform calculations to confirm reported GHG emissions.

Because there may be more direct follow-up activities under this alternative verification approach, we are proposing to extend the record retention period from 3 to 5 years. We have determined that 5 years is reasonable given the large number of reporters under the subparts identified in Table 2 of this preamble (over 2,000 facilities) and the likely increase in follow-up activities. It would be important that relevant records are available to the EPA for follow-up activities with facilities, including on-site audits if necessary, regarding potential errors, discrepancies, or questions. Should an EPA inspector visit a facility, it would be important to be able to examine not only the current year's records but those from previous years as well, because previous years' data would provide year-to-year comparisons, which are useful for verifying the current year's data. A 5-year record retention period would ensure the availability of relevant records for the follow-up activities described above. The EPA is proposing that this 5-year record retention requirement begin with records for reporting year 2010, as discussed in Section III.A.2 of this preamble.

For reporters subject to using the proposed inputs verification tool, the EPA is proposing to extend the record retention period not only for the subparts listed in Table 2 of the preamble, but also for other subparts that apply to reporters subject to a subpart in Table 2. Under this proposal, any such facility subject to both a subpart listed in Table 2 of this preamble and a subpart not listed in Table 2 would be required to maintain all records required under both subparts for a period of 5 years. For example, if a facility is required to use the proposed inputs verification tool under subpart C (in Table 2) and to report under subpart HH (not in Table 2), the facility would be required to maintain all records required under both subparts for 5 years. The EPA is proposing these provisions for two reasons. First, the EPA determined that during a site visit, if questions arise regarding the accuracy of an ''inputs to equations'' data element, it may be necessary to examine other non-input recordkeeping information, such as a monitoring plan or recordkeeping information in a different subpart, in order to fully investigate the accuracy of the data. It is necessary to ensure that all data necessary for verification are available, and this proposed 5-year record retention period would provide better assurance of on-site data availability. Second, the EPA determined that maintaining multiple sets of data records according to different record retention periods could possibly cause confusion and result in recordkeeping errors. Providing the same record retention duration for all subparts, as proposed, would simplify recordkeeping and thereby minimize the chance for recordkeeping errors.

In addition, the EPA is proposing revisions to the recordkeeping format for ''inputs to equations'' data elements. Currently, reporters have the option to maintain records of their ''inputs to equations'' data elements in one or more electronic or hard copy files. The proposed record format revision would require reporters to maintain an electronic or hard copy of the single file generated by the proposed inputs verification tool, listing all ''inputs to equations'' data elements entered into the tool. This proposed record format change would ensure that the EPA could readily access these data, enabling the EPA to quickly and efficiently perform calculations and data checks during site visits. All other records required under Part 98 would be maintained in the format currently required under Part 98. In combination with the proposed reporting requirements discussed in Sections III.A and C of this preamble, these proposed recordkeeping requirements would allow the EPA to adequately verify certain reported emissions without implicating the disclosure concerns discussed in the memorandum ''Evaluation of Competitive Harm For Reporting 2015 Inputs to Equations'' (refer to Docket ID No. EPA–HQ–OAR–2010–0929).

In amending 40 CFR part 98, subpart A to add these recordkeeping requirements, we are also correcting an error in the current version of 40 CFR 98.3(g). In a previous action amending this paragraph (76 FR 73866, November 29, 2011), our intention was to amend the second sentence of the paragraph regarding record retention duration; however, the third sentence regarding record format was inadvertently amended. To correct this error, we are proposing to remove the second sentence of 40 CFR 98.3(g) and to reinstate the previous third sentence of 40 CFR 98.3(g) (regarding format of records).

We seek comment on whether 5 years is the appropriate timeframe for maintaining records for facilities required to use the proposed inputs verification tool under a subpart listed in Table 2 of this preamble. In addition, we seek comment on the proposal to extend the record retention period for these reporters, not only for the subparts listed in Table 2 of the preamble, but also for other subparts that apply to these reporters.

C. Proposed Requirement To Report Additional Data

As part of our proposal to no longer require reporting of certain ''inputs to equations'' data elements, we are proposing to require that certain reporters using the proposed inputs verification tool also report the new data elements specified in Table 4 of this preamble. These additional data elements would allow the EPA to perform additional verification checks and minimize the number of follow-up activities. These data elements are quantities that provide information on the activity level at the facility, emission factors used, characteristics of carbon-containing streams, and other process information that would provide key information for verification, including confirming that emissions are appropriate for a given activity-level and estimating expected emissions based on data provided. These new data reporting elements would also enable the EPA to better understand the following aspects concerning reporters in order to inform future GHG policy: [9] (1) The GHG emission profile for the

[9] The EPA has previously stated that a goal of collecting data under the GHGRP is to inform future GHG policy (refer to the April 10, 2009 proposed rule, 74 FR 16455).

reporter; (2) the relationship of GHG emissions to production output or raw material input within the industry sector; and (3) the factors influencing GHG emissions.

The EPA is proposing to add six new equations (Equations Q–9 through Q–14 of part 98) to subpart Q to specify how to calculate and report each of the six new data elements proposed to be added to subpart Q. Table 4 of this preamble specifies which equation number correlates with each new proposed data element. Refer to the proposed amendments for subpart Q for the proposed equations.

The EPA is proposing confidentiality determinations for these proposed new data elements. Those new data elements determined to be confidential business information in a final rule would be afforded confidential treatment. Refer to the following Section IV of this preamble for the EPA's proposed confidentiality determinations for the proposed new data elements.

IV. Confidentiality Determination for Proposed New Data Elements To Be Reported

The EPA is proposing confidentiality determinations for each new data element listed in Table 4 of this preamble. To make these determinations, the EPA proposes to use the same approach that the EPA previously used for the 2011 final CBI rule (76 FR 30782, May 26, 2011). Specifically, the EPA is proposing to assign each new data element listed in Table 4 of this preamble to one of 11 direct emitter data categories, based on the type and characteristics of the data element. For a description of each data category and the type and characteristics of data elements assigned to each category, see Sections II.C and II.D of the July 7, 2010 CBI proposal preamble (75 FR 39106–39130).

Based on its evaluation of the new data elements, the EPA is proposing that each new data element be assigned to one of the four following direct emitter data categories:

- Production/Throughput Data that are Not Inputs to Emission Equations.
- Raw Materials Consumed that are Not Inputs to Emission Equations.
- Unit/Process ''Static'' Characteristics that are Not Inputs to Emission Equations.
- Unit/Process Operating Characteristics that are Not Inputs to Emission Equations.

In the 2011 final CBI rule (May 26, 2011, 76 FR 30782), the EPA made categorical determinations that all data elements assigned to the ''Production/Throughput Data that are Not Inputs to Emission Equations'' and ''Raw Materials Consumed that are Not Inputs to Emission Equations'' data categories are entitled to confidential treatment because the data do not meet the definition of ''emission data'' in 40 CFR 2.301(a)(2)(i) and they are CBI.

The EPA is proposing that seven new data elements be assigned to the ''Production/Throughput Data that are Not Inputs to Emission Equations'' data category and 10 new data elements be assigned to the ''Raw Materials Consumed that are Not Inputs to Emission Equations'' data category, as shown in Table 5 of this preamble, thereby applying the categorical confidentiality determinations made for these categories in the 2011 final CBI rule (i.e., they are CBI) to the proposed new reporting elements assigned to these categories. This proposal is not changing, nor soliciting comment on, the categorical confidentiality determination for these two data categories. Should the EPA finalize the category assignment for these data elements, all new data elements assigned to these categories would be considered to be entitled to confidential treatment.

TABLE 5—DATA ELEMENTS PROPOSED TO BE ASSIGNED TO THE ''PRODUCTION/THROUGHPUT DATA THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' AND ''RAW MATERIALS CONSUMED THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' DATA CATEGORIES

Subpart	Proposed citation	Data element
''Production/Throughput Data that are Not Inputs to Emission Equations'' Data Category		
G—Ammonia Production	40 CFR 98.76(b)(14)	Annual ammonia production (metric tons).
	40 CFR 98.76(b)(15)	Annual methanol production (metric tons), if this quantity is not reported under subpart X.
H—Cement Kilns	40 CFR 98.86(b)(16)	Annual clinker production (metric tons).
P—Hydrogen Production	40 CFR 98.166(e)	Annual methanol production (metric tons), if this quantity is not reported under subpart X.
S—Lime Manufacturing	40 CFR 98.196(b)(18)	Annual quantity (metric tons) of lime product sold, by type.
X—Petrochemical	40 CFR 98.246(a)(13) and (b)(10)	If using the mass balance method or CEMS method to calculate GHG emissions: Name and annual quantity (in metric tons) of each carbon-containing co-product.
AA—Pulp and Paper	40 CFR 98.276(l)(1)	For each pulp mill lime kiln: Quantity of calcium oxide (CaO) produced (metric tons).
''Raw Materials Consumed that are Not Inputs to Emission Equations'' Data Category		
E—Adipic Acid Production	40 CFR 98.56(m)	Annual quantity of cyclohexane fed to all production lines, combined (metric tons).
P—Hydrogen Production	40 CFR 98.166(b)(7)	Name and annual quantity (metric tons) of each carbon-containing fuel and feedstock.

TABLE 5—DATA ELEMENTS PROPOSED TO BE ASSIGNED TO THE ''PRODUCTION/THROUGHPUT DATA THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' AND ''RAW MATERIALS CONSUMED THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' DATA CATEGORIES—Continued

Subpart	Proposed citation	Data element
Q—Iron and Steel	40 CFR 98.176(e)(6)(i)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all gaseous, liquid, and solid fuels (combined) used in process units specified in Equations Q–1 through Q–7, calculated as specified in a new Equation Q–9 of subpart Q in the proposed rule amendments. Does not include fuel used in a stationary combustion unit where emissions are reported under subpart C.
	40 CFR 98.176(e)(6)(ii)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all non-fuel material inputs (combined) specified in Equations Q–1 through Q–7 of subpart Q, calculated as specified in a new Equation Q–10 of subpart Q in the proposed rule amendments.
	40 CFR 98.176(e)(6)(iii)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The annual mass (metric tons) of all solid and liquid products and byproducts (combined) specified in Equations Q–1 through Q–7, calculated as specified in a new Equation Q–11 of subpart Q in the proposed rule amendments.
	40 CFR 98.176(e)(6)(iv)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all gaseous, liquid, and solid fuels (combined) included in Equation Q–9 of subpart Q, calculated as specified in a new Equation Q–12 of subpart Q in the proposed rule amendments.
	40 CFR 98.176(e)(6)(v)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all non-fuel inputs to all furnaces (combined) included in Equation Q–10 of subpart Q, calculated as specified in a new Equation Q–13 of subpart Q in the proposed rule amendments.
	40 CFR 98.176(e)(6)(vi)	If you use the carbon mass balance method in 40 CFR 98.173(b)(1) to determine CO_2 emissions: The weighted average carbon content of all solid and liquid products and byproducts from all furnaces (combined) included in a new Equation Q–11 of subpart Q in the proposed rule amendments, calculated as specified in new Equation Q–14 of subpart Q in the proposed rule amendments.
X—Petrochemical	40 CFR 98.246(a)(12) and (b)(9)	If using the mass balance method or CEMS method to calculate GHG emissions: Name and annual quantity (in metric tons) of each carbon-containing feedstock.
AA—Pulp and Paper	40 CFR 98.276(m)(1)	For each chemical recovery furnace and chemical recovery combustion unit for which you are not using Equation C–2c of subpart C to calculate CO_2 emissions: Annual mass of steam generated (lb steam), individually for each fossil fuel type and for spent liquor solids.

The EPA is proposing to assign eight proposed new data elements to the ''Unit Process Operating Characteristics that are Not Inputs to Emission Equations'' category and one proposed new data element to the ''Unit/Process Static Characteristics that are Not Inputs to Emission Equations'' category. In the 2011 final CBI rule, the EPA determined that the data elements in these categories are not ''emission data'' (as defined at 40 CFR 2.301(a)(2)(i)). However, instead of categorical determinations, the EPA made confidentiality determinations for individual data elements assigned to these two categories. In proposing these determinations, the EPA considered the confidentiality criteria at 40 CFR 2.208, in particular whether release of the data is likely to cause substantial harm to the business's competitive position. See 40 CFR 2.208(e)(1). The EPA is therefore following the same approach in this action for the proposed new reporting elements assigned to these two categories.

Table 6 of this preamble lists the data elements the EPA proposes to assign to these two data categories and presents the EPA's rationale for proposing to determine that each does or does not qualify as CBI under CAA section 114(c).

TABLE 6—PROPOSED CONFIDENTIALITY DETERMINATIONS FOR PROPOSED NEW DATA ELEMENTS ASSIGNED TO THE "UNIT/PROCESS OPERATING CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS" AND "UNIT/PROCESS 'STATIC' CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS" DATA CATEGORIES

Subpart	Citation	Data element	Confidentiality determination	Proposed rationale for confidentiality determination
"Unit/Process Operating Characteristics That Are Not Inputs to Emission Equations" Data Category				
E—Adipic Acid Production.	40 CFR 98.56(n)	Annual percent N_2O emission reduction for all production units combined.	Not CBI	The annual facility percent N_2O reduction could not be used to calculate adipic acid production. The level of N_2O reductions varies by the type of abatement technology, the environment in which the abatement technology is operating, the age of the abatement technology, the age of the catalyst used, and the maintenance level of the abatement technology.
H—Cement Kilns	40 CFR 98.86(b)(17)	Annual average clinker CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton clinker produced).	CBI	This data element could be used to back calculate a facility's clinker production data, which would result in competitive disadvantage.
	40 CFR 98.86(b)(18)	Annual average cement kiln dust (CKD) CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton CKD produced).	CBI	This data element could provide information about the efficiency of the operation, which would result in competitive disadvantage.
V—Nitric Acid Production.	40 CFR 98.226(q)	Annual percent N_2O emission reduction for all production units combined.	Not CBI	The annual facility percent N_2O reduction for all nitric acid production trains combined could not be used to calculate the nitric acid production value for any individual facility. The level of N_2O reductions for each individual facility varies by the type of abatement technology, the environment in which the abatement technology is operating, the age of the abatement technology, the age of the catalyst used, and the maintenance level of the abatement technology. Additionally, facility-level N_2O emission reduction information is already publicly available (see docket number EPA–HQ–OAR–2010–0750 and *http://www.climateactionreserve.org*).
Y—Petroleum Refineries.	40 CFR 98.256(e)(11)(i)	Annual quantity of flare gas combusted (in MMscf per year) (only when using Equation Y–3 of subpart Y).	Not CBI	This data element does not reveal (nor could be used to calculate) details regarding product characteristics, actual production data, or operating efficiency. It does not provide information that would allow competitors to infer market share, production costs, or pricing structures and thus gain a competitive advantage. The EPA applied the same rationale in the 2010 proposed and 2011 final CBI rules (75 FR 39113, July 7, 2010; and 76 FR 30803—30806, May 26, 2011), in support of a non-CBI determination for reporting of the following same data element currently required to be reported if a different equation (Equation Y–1a) is used: annual volume of flare gas combusted (scf/year) under 40 CFR 98.256(e)(6).

TABLE 6—PROPOSED CONFIDENTIALITY DETERMINATIONS FOR PROPOSED NEW DATA ELEMENTS ASSIGNED TO THE ''UNIT/PROCESS OPERATING CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' AND ''UNIT/PROCESS 'STATIC' CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' DATA CATEGORIES—Continued

Subpart	Citation	Data element	Confidentiality determination	Proposed rationale for confidentiality determination
	40 CFR 98.256(e)(11)(ii)	Annual average molecular weight of flare gas combusted (in mmBtu per MMscf) (only when using Equation Y–3 of subpart Y).	Not CBI	This data element does not reveal (nor could be used to calculate) details regarding product characteristics, actual production data, or operating efficiency. It does not provide information that would allow competitors to infer market share, production costs, or pricing structures and thus gain a competitive advantage. The EPA applied the same rationale in the 2010 proposed and 2011 final CBI rules (75 FR 39113, July 7, 2010; and 76 FR 30803—30806, May 26, 2011), in support of a non-CBI determination for reporting of the following same data element currently required to be reported if a different equation (Equation Y–1a of subpart Y) is used: annual average molecular weight of the flare gas (kg/kg-mole) under 40 CFR 98.256(e)(6).
	40 CFR 98.256(e)(11)(iii)	Annual average carbon content of flare gas combusted (expressed as a decimal fraction) (only when using Equation Y–3 of subpart Y).	Not CBI	This data element does not reveal (nor could be used to calculate) details regarding product characteristics, actual production data, or operating efficiency. It does not provide information that would allow competitors to infer market share, production costs, or pricing structures and thus gain a competitive advantage. The EPA applied the same rationale in the 2010 proposed and 2011 final CBI rules (75 FR 39113, July 7, 2010; and 76 FR 30803—30806, May 26, 2011), in support of a non-CBI determination for reporting of the following same data element currently required to be reported if a different equation (Equation Y–1a of subpart Y) is used: annual average carbon content of the flare gas (kg carbon/kg flare gas) under 40 CFR 98.256(e)(6).
AA—Pulp and Paper	40 CFR 98.276(l)(2)	For each pulp mill lime kiln: Percent of annual heat input, individually for each fossil fuel type.	Non-CBI	Release of this data would not result in competitive harm because lime kiln fossil fuel use as a fraction of design heat input was reported to the EPA as part of a 2011 ICR survey, and facilities reporting via the survey made no CBI claims regarding fuel type and percent of design heat input.

TABLE 6—PROPOSED CONFIDENTIALITY DETERMINATIONS FOR PROPOSED NEW DATA ELEMENTS ASSIGNED TO THE ''UNIT/PROCESS OPERATING CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' AND ''UNIT/PROCESS 'STATIC' CHARACTERISTICS THAT ARE NOT INPUTS TO EMISSION EQUATIONS'' DATA CATEGORIES—Continued

Subpart	Citation	Data element	Confidentiality determination	Proposed rationale for confidentiality determination
''Unit/Process 'Static' Characteristics that Are Not Inputs to Emission Equations'' Data Category				
AA—Pulp and Paper	40 CFR 98.276(m)(2)	For each chemical recovery furnace and chemical recovery combustion unit for which you are not using Equation C–2c of subpart C to calculate CO_2 emissions: Ratio of the unit's maximum rated heat input capacity to its design rated steam output capacity (mmBtu/lb steam), individually for each fossil fuel type and for spent liquor solids.	ND [1]	In the final CBI rulemaking (76 FR 30799, May 26, 2011), we determined that the best approach for determining confidentiality of production capacity is not to make a single CBI determination applicable to all facilities within a given source category, due to differences between facilities. For all reported data elements related to production capacity, the EPA will make case-by-case determinations per reporter, in accordance with the provisions in 40 CFR part 2, subpart B for facilities that claim these data elements as CBI.

[1] ND = No determination is being proposed.

The EPA is requesting comment on two aspects of these confidentiality determinations. First, the EPA seeks comment on the proposed data category assignment for each of these data elements in Tables 5 and 6 of this preamble. If you believe that the EPA has improperly assigned any proposed new data elements to one of the data categories, please provide specific comments identifying which proposed new data elements may be mis-assigned along with a detailed explanation of why you believe them to be incorrectly assigned and in which data category you believe they best belong.

Second, for those data elements included in Table 6 of this preamble and assigned to the two direct emitter data categories without categorical confidentiality determinations, the EPA seeks comment on the individual confidentiality determinations we are proposing for these data elements. If you comment on this issue, please provide specific comment along with detailed rationale and supporting information on whether such data element does or does not qualify as CBI.

V. Impacts of the Proposed Rule

This section examines the cost impacts of the proposed rulemaking. A detailed discussion of the impacts may be found in the memorandum, ''Assessment of Cost Impacts of 2015 Inputs Proposal—Revisions to Reporting, Recordkeeping, and Verification Requirements under the Greenhouse Gas Reporting Program,'' available in EPA docket ID No. EPA–HQ–OAR–2010–0929.

A. How were the costs of this proposed rule estimated?

1. Proposed Inputs Verification Tool

The data elements required to be used for calculating the annual GHG emissions values and the cost associated with collecting these data have not changed from the estimate made during the original rulemaking process. The time associated with entry of these ''inputs to equations'' data elements into e-GGRT (including into the new inputs verification tool) is expected to be equivalent to the time originally anticipated for data entry. Prior to the inputs verification tool, as currently required, reporters must use their own calculation tool (e.g., calculator, calculation software) to calculate the annual GHG emissions values, using the same sets of equations and entering the same data elements that they would enter into the tool.

The EPA does recognize however that there may be some time associated with learning the new procedures for the inputs verification tool and we have estimated a cost of approximately $66 per facility, or $379,000 for the first year for all affected facilities. During their first session using the proposed inputs verification tool, reporters would need to spend approximately 1 hour becoming familiar with how the tool operates within e-GGRT. The proposed new requirement to use the inputs verification tool would not result in any change in the respondent activity of entering these data into e-GGRT. Once the reporter has become familiar with the tool, EPA does not anticipate any additional burden. The cost includes technical, clerical, and managerial labor hours. For further information about this cost estimate, refer to the memorandum ''Assessment of Cost Impacts of 2015 Inputs Proposal—Revisions to Reporting, Recordkeeping, and Verification Requirements under the Greenhouse Gas Reporting Program'' and the supporting statement for this proposed information collection request, ''Supporting Statement, Environmental Protection Agency: Revisions to Reporting and Recordkeeping Requirements, and Proposed Confidentiality Determinations under the Greenhouse Gas Reporting Program, OMB control number 2060–0629, ICR number 2300.12,'' both available in docket EPA–HQ–OAR–2010–0929.

2. Proposed New Data Elements

We are proposing to add 26 new data elements that were not previously required to be reported under Part 98 (see Section II.D of this preamble for further discussion of this proposed amendment), to be reported by facilities in certain subparts that are required to use the proposed inputs verification tool. Of these 26 data elements, nine data elements are related to annual production or raw material usage, which are collected by a facility as a routine part of conducting business. For these data elements, we are not proposing that reporters comply with specific data collection or monitoring requirements beyond the methods commonly used for accounting purposes. The other 17 data elements proposed to be reported are calculated values using data currently required to be collected to perform

emissions calculations. For all of these additional data elements, the EPA has estimated a nominal additional cost to report the data element and fulfill the recordkeeping requirements. The total costs associated with reporting and recordkeeping for the 26 data elements in 10 subparts is $80,000. These costs represent the cost for all affected facilities in the first year.

B. Additional Impacts of the Proposed Amendments

The proposed confidentiality determinations for the new data elements would not affect whether and how data are reported and, therefore, would not impose any additional burden on sources.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action'' because this action raises novel legal or policy issues arising out of legal mandates, the President's priorities, or principles set forth in the executive order. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2300.12.

This action proposes to amend reporting and recordkeeping requirements and verification procedures for the GHGRP. In addition, the EPA is proposing confidentiality determinations for the proposed new data elements in this action. The proposed amendments to the reporting requirements in the source category-specific subparts are not anticipated to result in significant burden for reporters. The new data elements required to be reported are expected to be readily available for affected facilities, or easily calculated using data already required to be collected (e.g., a monthly value is currently reported and an annual value is proposed to be reported).

Impacts associated with the proposed changes to the reporting requirements in each subpart are detailed in the memorandum ''Assessment of Cost Impacts of 2015 Inputs Proposal—Revisions to Reporting, Recordkeeping, and Verification Requirements under the Greenhouse Gas Reporting Program'' (see Docket ID No. EPA–HQ–OAR–2010–0929). Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, the EPA has established a public docket for this rule, which includes this ICR, under Docket ID number EPA–HQ–OAR–2010–0929. Submit any comments related to this ICR to the EPA and the OMB. See the ADDRESSES section at the beginning of this notice for where to submit comments to the EPA. Send comments to the OMB at the Office of Information Regulatory Affairs, Office of Management and Budget, 725 17th Street NW., Washington, DC 20503, Attention: Desk Office for EPA. Since the OMB is required to make a decision concerning this ICR between 30 and 60 days after September 11, 2013, a comment to OMB is best assured of having its full effect if OMB receives the comment by October 11, 2013. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act (RFA)

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's proposed rule amendments on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. After considering the economic impacts of today's proposed amendments on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by these proposed rule amendments include small businesses across all sectors of the economy encompassed by Part 98, small governmental jurisdictions, and small non-profits. We have determined that these facilities will experience impacts of roughly a first-year cost of $66 per facility for learning new procedures for the verification tool and an annual cost of $100 per facility for the recordkeeping and reporting of 26 new data elements.

Although these proposed rule amendments will not have a significant economic impact on a substantial number of small entities, the EPA nonetheless has tried to reduce the impact of this rule on small entities. The EPA supports a ''help desk'' for the GHGRP, which would be available to answer questions on the provisions in this rulemaking.

We continue to be interested in the potential impacts of the proposed rule amendments on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act (UMRA)

The proposed amendments and confidentiality determinations do not contain a federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. This action proposes: (1) Requirements for certain reporters under 24 subparts to use an EPA-provided inputs verification tool instead of reporting certain data elements for which disclosure concerns have been identified, (2) lengthening the record retention time for reporters required to use the inputs verification tool, and (3) new data elements to be reported for certain reporters using the inputs verification tool and confidentiality determinations for these new data element. As discussed in section V of this preamble, for the first year, the total collective impact on regulated entities is: (1) $379,000, or $66 per entity, for using the inputs verification tool; and (2) $80,000, or

$103 per entity, for the proposed new data elements to be reported. Thus, the proposed amendments and confidentiality determinations are not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action proposes to amend reporting and recordkeeping requirements and verification procedures for certain reporters in the GHGRP. In addition, the EPA is proposing confidentiality determinations for the proposed new data elements in this action. As discussed in section V of this preamble, the total collective impact on regulated entities is $459,000 in the first year, and $80,000 annually thereafter. Because this impact on each individual facility is estimated to be approximately $66–$169 in the first year and $103 annually thereafter, the EPA has determined that the provisions in this action would not significantly impact small governments. In addition, because none of the provisions apply specifically to small governments, the EPA has determined that the provisions in this action would not uniquely impact small governments. Therefore, this action is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

The action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The proposed amendments and confidentiality determinations apply to facilities that directly emit greenhouses gases and fuel and chemicals suppliers. These proposed changes do not apply to governmental entities unless the government entity owns a facility that directly emits GHGs above threshold levels (such as a large stationary combustion device), so relatively few government facilities would be affected. Moreover, for government facilities that are subject to the rule, the proposed revisions will not have a significant cost impact. This proposed action also does not limit the power of states or localities to collect GHG data and/or regulate GHG emissions. Thus, Executive Order 13132 does not apply to this rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between the EPA and State and local governments, the EPA specifically solicits comments on this proposed action from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments.

This proposed action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). The proposed amendments and confidentiality determinations apply directly to facilities that directly emit greenhouses gases or that are suppliers of GHGs. They would not have tribal implications unless the tribal entity owns a facility that directly emits GHGs above threshold levels (such as a landfill or large combustion device). Relatively few tribal facilities would be affected. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This proposed action is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This proposed action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Part 98 relates to monitoring, reporting, and recordkeeping and does not impact energy supply, distribution, or use. This action proposes to amend reporting and recordkeeping requirements and verification procedures for the GHGRP. In addition, the EPA is proposing confidentiality determinations for the proposed new data elements in this action. These proposed amendments and confidentiality determinations do not make any changes to the existing monitoring, recordkeeping, or reporting requirements under Part 98 that affect the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs the EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rulemaking does not involve any new technical standards. Therefore, the EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

The EPA has determined that these proposed rule amendments will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because the amendments do not affect the level of protection provided to human health or the environment. This is because the proposed amendments address information collection and reporting and verification procedures.

List of Subjects 40 CFR Part 98

Environmental protection, Administrative practice and procedure, Greenhouse gases, Reporting and recordkeeping requirements.

Dated: August 29, 2013.

Gina McCarthy,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, of the Code

of Federal Regulations is proposed to be amended as follows:

PART 98—MANDATORY GREENHOUSE GAS REPORTING

■ 1. The authority citation for part 98 continues to read as follows:

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

Subpart A—[AMENDED]

■ 2. Section 98.3 is amended by revising paragraphs (c)(4)(vii), (d)(3)(v), (g) introductory text, and (g)(2)(i) to read as follows:

§ 98.3 What are the general monitoring, reporting, recordkeeping and verification requirements of this part?

* * * * *

(c) * * *

(4) * * *

(vii) The owner or operator of a facility is not required to report the data elements specified in Table A–6 to this subpart for calendar years 2010 through 2011 until March 31, 2013. The owner or operator of a facility is not required to report the data elements specified in Table A–7 to this subpart for calendar years 2010 through 2013 until March 31, 2015. Data elements specified in Table A–7 to this subpart for calendar years 2010 through 2013 must be submitted as part of the annual report for reporting year 2014.

* * * * *

(d) * * *

(3) * * *

(v) For each stationary fuel combustion source that that meets the criteria specified in § 98.36(f) of this part, report any facility operating data or process information used for the GHG emission calculations.

* * * * *

(g) *Recordkeeping.* An owner or operator that is required to report GHGs under this part must keep records as specified in this paragraph. Except as otherwise provided in this paragraph, retain all required records for at least 3 years from the date of submission of the annual GHG report for the reporting year in which the record was generated. The records shall be kept in an electronic or hard-copy format (as appropriate) and recorded in a form that is suitable for expeditious inspection and review. If a reporter is required under § 98.5(b) to use software specified by the Administrator to enter data to calculate the reported GHGs, all records required under Part 98 must be retained by the reporter for 5 years from the date of submission of the annual GHG report for the reporting year in which the record was generated. Upon request by the Administrator, the records required under this section must be made available to EPA. Records may be retained off site if the records are readily available for expeditious inspection and review. For records that are electronically generated or maintained, the equipment or software necessary to read the records shall be made available, or, if requested by EPA, electronic records shall be converted to paper documents. You must retain the following records, in addition to those records prescribed in each applicable subpart of this part:

* * * * *

(2) * * *

(i) The GHG emissions calculations and methods used. For data required by § 98.5(b) to be entered into the software specified by the Administrator, maintain the entered data in the format generated by the software specified by the Administrator.

* * * * *

■ 3. Section 98.5 is revised to read as follows:

§ 98.5 How is the report submitted?

(a) Each GHG report and certificate of representation for a facility or supplier must be submitted electronically in accordance with the requirements of § 98.4 and in a format specified by the Administrator.

(b) For reporting year 2014 and thereafter, you must enter into verification software specified by the Administrator the data used as inputs to the calculation methods specified in Table A–8 to Part 98, excluding data required to be reported in the reporting section of each subpart listed in Table A–8 to Part 98.

■ 4. Table A–7 to Subpart A of Part 98 is revised to read as follows:

TABLE A–7 TO SUBPART A OF PART 98—DATA ELEMENTS THAT ARE INPUTS TO EMISSION EQUATIONS AND FOR WHICH THE REPORTING DEADLINE IS MARCH 31, 2015

Subpart	Rule citation (40 CFR part 98)	Specific data elements for which reporting date is March 31, 2015 ("All" means all data elements in the cited paragraph are not required to be reported until March 31, 2015)
A	98.3(d)(3)(v)	All.
C	98.36(b)(9)(iii)	Only estimate of the heat input.[1]
C	98.36(c)(2)(ix)	Only estimate of the heat input from each type of fuel listed in Table C–2.[1]
C	98.36(e)(2)(i)	All.[1]
C	98.36(e)(2)(ii)(A)	All.[1]
C	98.36(e)(2)(ii)(C)	Only HHV value for each calendar month in which HHV determination is required.[1]
C	98.36(e)(2)(ii)(D)	All.[1]
C	98.36(e)(2)(iv)(A)	All.[1]
C	98.36(e)(2)(iv)(C)	All.[1]
C	98.36(e)(2)(iv)(F)	All.[1]
C	98.36(e)(2)(ix)(D)	All.[1]
C	98.36(e)(2)(ix)(E)	All.[1]
C	98.36(e)(2)(ix)(F)	All.[1]
E	98.56(g)	All.
E	98.56(h)	All.
E	98.56(j)(4)	All.
E	98.56(j)(5)	All.
E	98.56(j)(6)	All.
E	98.56(l)	All.
H	98.86(b)(11)	All.
H	98.86(b)(13)	Name of raw kiln feed or raw material.
L	98.126(b)(10)	All.
L	98.126(b)(11)	All.

TABLE A–7 TO SUBPART A OF PART 98—DATA ELEMENTS THAT ARE INPUTS TO EMISSION EQUATIONS AND FOR WHICH THE REPORTING DEADLINE IS MARCH 31, 2015—Continued

Subpart	Rule citation (40 CFR part 98)	Specific data elements for which reporting date is March 31, 2015 ("All" means all data elements in the cited paragraph are not required to be reported until March 31, 2015)
L	98.126(b)(12)	All.
O	98.156(d)(2)	All.
O	98.156(d)(3)	All.
O	98.156(d)(4)	All.
Q	98.176(f)(1)	All.
V	98.226(i)	All.
V	98.226(j)	All.
V	98.226(m)(4)	All.
V	98.226(m)(5)	All.
V	98.226(m)(6)	All.
V	98.226(p)	All.
W	98.236(c)(1)(i)	All.
W	98.236(c)(1)(ii)	All.
W	98.236(c)(1)(iii)	All.
W	98.236(c)(2)(i)	All.
W	98.236(c)(3)(i)	All.
W	98.236(c)(3)(ii)	All.
W	98.236(c)(3)(iii)	All.
W	98.236(c)(4)(i)(A)	All.
W	98.236(c)(4)(i)(B)	All.
W	98.236(c)(4)(i)(C)	All.
W	98.236(c)(4)(i)(D)	All.
W	98.236(c)(4)(i)(E)	All.
W	98.236(c)(4)(i)(F)	All.
W	98.236(c)(4)(i)(G)	All.
W	98.236(c)(4)(i)(H)	All.
W	98.236(c)(4)(ii)(A)	All.
W	98.236(c)(5)(iii)	All.
W	98.236(c)(5)(iv)	All.
W	98.236(c)(5)(v)	All.
W	98.236(c)(6)(i)(B)	All.
W	98.236(c)(6)(i)(D)	All.
W	98.236(c)(6)(i)(E)	All.
W	98.236(c)(6)(i)(F)	All.
W	98.236(c)(6)(ii)(A)	All.
W	98.236(c)(6)(ii)(B)	All.
W	98.236(c)(7)(i)	All.
W	98.236(c)(8)(i)(B)	All.
W	98.236(c)(8)(i)(C)	All.
W	98.236(c)(8)(i)(F)	All.
W	98.236(c)(8)(ii)(A)	All.
W	98.236(c)(8)(ii)(D)	All.
W	98.236(c)(8)(iii)(A)	All.
W	98.236(c)(8)(iii)(D)	All.
W	98.236(c)(8)(iii)(E)	All.
W	98.236(c)(10)(ii)	All.
W	98.236(c)(10)(iii)	All.
W	98.236(c)(11)(ii)	All.
W	98.236(c)(12)(ii)	All.
W	98.236(c)(12)(iii)	All.
W	98.236(c)(12)(v)	All.
W	98.236(c)(13)(i)(B)	All.
W	98.236(c)(13)(i)(E)	All.
W	98.236(c)(13)(i)(F)	All.
W	98.236(c)(13)(ii)(A)	All.
W	98.236(c)(13)(ii)(B)	All.
W	98.236(c)(13)(iii)(A)	All.
W	98.236(c)(13)(iii)(B)	All.
W	98.236(c)(13)(v)(A)	All.
W	98.236(c)(14)(i)(B)	All.
W	98.236(c)(14)(ii)(A)	All.
W	98.236(c)(14)(ii)(B)	All.
W	98.236(c)(14)(iii)(A)	All.
W	98.236(c)(14)(iii)(B)	All.
W	98.236(c)(14)(v)(A)	All.
W	98.236(c)(15)(i)(A)	All.
W	98.236(c)(15)(i)(B)	All.
W	98.236(c)(15)(ii)(A)	All.
W	98.236(c)(15)(ii)(B)	All.

TABLE A–7 TO SUBPART A OF PART 98—DATA ELEMENTS THAT ARE INPUTS TO EMISSION EQUATIONS AND FOR WHICH THE REPORTING DEADLINE IS MARCH 31, 2015—Continued

Subpart	Rule citation (40 CFR part 98)	Specific data elements for which reporting date is March 31, 2015 ("All" means all data elements in the cited paragraph are not required to be reported until March 31, 2015)
W	98.236(c)(16)(i)	All.
W	98.236(c)(16)(ii)	All.
W	98.236(c)(16)(iii)	All.
W	98.236(c)(16)(iv)	All.
W	98.236(c)(16)(v)	All.
W	98.236(c)(16)(vi)	All.
W	98.236(c)(16)(vii)	All.
W	98.236(c)(16)(viii)	All.
W	98.236(c)(16)(ix)	All.
W	98.236(c)(16)(x)	All.
W	98.236(c)(16)(xi)	All.
W	98.236(c)(16)(xii)	All.
W	98.236(c)(16)(xiii)	All.
W	98.236(c)(16)(xiv)	All.
W	98.236(c)(17)(ii)	All.
W	98.236(c)(17)(iii)	All.
W	98.236(c)(17)(iv)	All.
W	98.236(c)(18)(i)	All.
W	98.236(c)(18)(ii)	All.
W	98.236(c)(19)(iv)	All.
W	98.236(c)(19)(vii)	All.
Y	98.256(h)(5)	Only value of the correction.
Y	98.256(k)(4)	Only mole fraction of methane in coking gas.
Y	98.256(n)(3)	All (if used in Equation Y–21 to calculate emissions from equipment leaks).
Y	98.256(o)(4)(vi)	Only tank-specific methane composition data and gas generation rate data.
AA	98.276(e)	All.
CC	98.296(b)(10)(i)	All.
CC	98.296(b)(10)(ii)	All.
CC	98.296(b)(10)(iii)	All.
CC	98.296(b)(10)(iv)	All.
CC	98.296(b)(10)(v)	All.
CC	98.296(b)(10)(vi)	All.
II	98.356(d)(2)	All (if conducting weekly sampling).
II	98.356(d)(3)	All (if conducting weekly sampling).
II	98.356(d)(4)	Only weekly average temperature (if conducting weekly sampling).
II	98.356(d)(5)	Only weekly average moisture content (if conducting weekly sampling).
II	98.356(d)(6)	Only weekly average pressure (if conducting weekly sampling).

[1] Required to be reported only by stationary fuel combustion sources (e.g., individual units, aggregations of units, common pipes, or common stacks) subject to subpart C of this part that meet both of the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators that are connected to combustion units subject to subpart D of this part); and (2) the stationary fuel combustion source is located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output.

■ 5. Table A–8 to Subpart A of Part 98 is added to read as follows:

TABLE A–8 TO SUBPART A OF PART 98—CALCULATION METHODS FOR WHICH INPUTS TO THE CALCULATION METHODS MUST BE ENTERED INTO VERIFICATION SOFTWARE SPECIFIED BY THE ADMINISTRATOR

Subpart	Calculation method (equation number in 40 CFR part 98 or description of method)
Subpart C [1]	C–1, C–1a, C–1b, C–2b, C–2c, C–3, C–4, C–5, C–8, C–8a, C–8b, C–10, C–13, the calculation method specified in § 98.3(d)(3)(iv) of subpart A.
Subpart E	E–1, E–2, E–3a, E–3b, E–3c, E–3d.
Subpart F	F–2 (including the method for calculating the anode effect minutes per cell-day (AEM) and slope coefficients (SCF4), F–3 (including the method for calculating the overvoltage factor (EFCF4)), F–5, F–6, F–7, F–8.
Subpart G	G–1, G–2, G–3.
Subpart H	H–2 (including the method in § 98.84(d) of subpart H for calculating the quantity of clinker produced), H–3, H–4, H–5.
Subpart K	K–1, K–3.
Subpart L	L–1, L–2, L–3, L–4, L–6, L–7, L–8, L–17, L–18, L–20, L–21, L–22, L–23, L–25, L–26, L–27, L–31, L–34.
Subpart N	N–1.
Subpart O	O–3, O–4, O–8, O–9 (including the calculation method specified in § 98.154(l)(2) of subpart O).
Subpart P	P–1, P–2, P–3.

TABLE A–8 TO SUBPART A OF PART 98—CALCULATION METHODS FOR WHICH INPUTS TO THE CALCULATION METHODS MUST BE ENTERED INTO VERIFICATION SOFTWARE SPECIFIED BY THE ADMINISTRATOR—Continued

Subpart	Calculation method (equation number in 40 CFR part 98 or description of method)
Subpart Q	Q–1, Q–2, Q–3, Q–4, Q–5, Q–6, Q–7, the calculation methods specified in § 98.173(b)(2)(iii), (b)(2)(iv), and (c) of subpart Q.
Subpart R	R–1.
Subpart S	S–1, S–2, S–3, S–4 (including the calculation method specified in § 98.194(a).
Subpart U	U–1, U–2.
Subpart V	V–2, V–3a, V–3b, V–3c, V–3d.
Subpart X	X–1, X–2, X–3, C–8.
Subpart Y	Y–1a, Y–1b, Y–3, Y–4, Y–6, Y–8, Y–11, Y–12 (including the method for correcting the calculation, if applicable, as specified in § 98.253(f)(5)), Y–13, Y–14, Y–15, Y–16a, Y–16b, Y–17, Y–18, Y–19, Y–20, Y–22, Y–23, the methods for calculating emissions from coke burn-off specified in § 98.253(c)(4) and (5) (alternatives to using Equations Y–9 and Y–10 of Part 98), the calculation method specified in § 98.253(n) of subpart Y.
Subpart Z	Z–1a, Z–1b.
Subpart AA	C–1, C–1a, C–1b, C–2a, C–3, C–4, C–5, C–8, C–8a, C–8b, C–9a, AA–1, AA–2, AA–3.
Subpart BB	BB–1, BB–2.
Subpart CC	CC–1, CC–2.
Subpart EE	EE–2.
Subpart GG	GG–1.
Subpart TT	TT–2, TT–3.

[1] Does not apply to any stationary fuel combustion sources (e.g., individual units, aggregations of units, common pipes, or common stacks) subject to subpart C of this part that meet both of the following criteria: (1) The stationary fuel combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators that are connected to combustion units subject to subpart D of this part); and (2) the stationary fuel combustion source is located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output.

Subpart C—[AMENDED]

■ 6. Section 98.36 is amended by:
■ a. Revising paragraph (a);
■ b. Revising paragraph (b)(9)(iii) and adding paragraph (b)(9)(iv);
■ c. Revising paragraph (c)(2)(ix) and adding paragraph (c)(2)(x);
■ d. Revising paragraphs (e)(2)(i), (e)(2)(ii)(A), (e)(2)(ii)(C), and (e)(2)(ii)(D); and adding paragraph (e)(2)(ii)(E); and
■ e. Revising paragraphs (e)(2)(iv)(A), (e)(2)(iv)(C), (e)(2)(iv)(F), (e)(2)(ix)(D), (e)(2)(ix)(E) and (e)(2)(ix)(F); and adding paragraph (f).

The revisions and additions read as follows:

§ 98.36 Data reporting requirements.

* * * * *

(a) In addition to the facility-level information required under § 98.3, the annual GHG emissions report shall contain the unit-level or process-level data specified in paragraphs (b) through (f) of this section, as applicable, for each stationary fuel combustion source (e.g., individual unit, aggregation of units, common pipe, or common stack).

(b) * * *

(9) * * *

(iii) The annual CH_4 and N_2O emissions for each type of fuel listed in Table C–2 of this subpart that was combusted in the unit during the report year, expressed in metric tons of each gas and in metric tons of CO_2e.

(iv) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, report an estimate of the heat input from each type of fuel listed in Table C–2 of this subpart that was combusted in the unit during the report year.

* * * * *

(c) * * *

(2) * * *

(ix) For each type of fuel listed in Table C–2 of this subpart that was combusted during the report year in the units sharing the common stack or duct during the report year, the annual CH_4 and N_2O mass emissions from the units sharing the common stack or duct, expressed in metric tons of each gas and in metric tons of CO_2 e.

(x) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, an estimate of the heat input from each type of fuel listed in Table C–2 of this subpart that was combusted during the report year in the units sharing the common stack or duct during the report year.

* * * * *

(e) * * *

(2) * * *

(i) For the Tier 1 Calculation Methodology, for each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, report the total quantity of each type of fuel combusted in the unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.

(ii) * * *

(A) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the total quantity of each type of fuel combusted in the unit or group of aggregated units (as applicable) during each month of the reporting year. Express the quantity of each fuel combusted during the measurement period in short tons for solid fuels, gallons for liquid fuels, and scf for gaseous fuels.

* * * * *

(C) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the high heat values used in the CO_2 emissions calculations for each type of fuel combusted during the reporting year, in mmBtu per short ton for solid fuels, mmBtu per gallon for liquid fuels, and mmBtu per scf for gaseous fuels. Report a HHV value for each calendar month in which HHV determination is required. If multiple values are obtained in a given month, report the arithmetic average value for the month. Indicate whether each reported HHV is a measured value or a substitute data value.

(D) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, if Equation C–2c of this subpart is used to calculate CO_2 mass emissions, report the total quantity (*i.e.,* pounds) of steam produced from MSW or solid fuel

combustion during each month of the reporting year, and the ratio of the maximum rate heat input capacity to the design rated steam output capacity of the unit, in mmBtu per lb of steam.

(E) For each HHV used in the CO_2 emissions calculations for each type of fuel combusted during the reporting year, indicate whether the HHV is a measured value or a substitute data value.

* * * * *

(iv) * * *

(A) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year, in short tons for solid fuels, gallons for liquid fuels, and scf for gaseous fuels.

* * * * *

(C) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the carbon content and, if applicable, gas molecular weight values used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. Express carbon content as a decimal fraction for solid fuels, kg C per gallon for liquid fuels, and kg C per kg of fuel for gaseous fuels. Express the gas molecular weights in units of kg per kg-mole.

* * * * *

(F) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the annual average HHV, when measured HHV data, rather than a default HHV from Table C–1 of this subpart, are used to calculate CH_4 and N_2O emissions for a Tier 3 unit, in accordance with § 98.33(c)(1).

* * * * *

(ix) * * *

(D) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the carbon-based F-factor used in Equation C–13 of this subpart, for each type of fossil fuel combusted, in scf CO_2 per mmBtu.

(E) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the annual average HHV value used in Equation C–13 of this subpart, for each type of fossil fuel combusted, in Btu/lb, Btu/gal, or Btu/scf, as appropriate.

(F) For each stationary fuel combustion source that meets the criteria specified in paragraph (f) of this section, the total quantity of each type of fossil fuel combusted during the reporting year, in lb, gallons, or scf, as appropriate.

* * * * *

(f) Each stationary fuel combustion source (e.g., individual unit, aggregation of units, common pipe, or common stack) subject to reporting under paragraph (b), (c), or (d)(2) of this section must indicate if both of the following two conditions are met:

(1) The stationary combustion source contains at least one combustion unit connected to a fuel-fired electric generator that has been granted access by the Public Utilities Commission to deliver power to the local or regional electric power grid (excluding generators that are connected to combustion units that are subject to subpart D of this part).

(2) The stationary fuel combustion source is located at a facility for which the sum of the nameplate capacities for all electric generators specified in paragraph (f)(1) of this section is greater than or equal to 1 megawatt electric output.

Subpart E—[AMENDED]

■ 7. Section 98.56 is amended by:
■ a. Revising the introductory text;
■ b. Removing and reserving paragraphs (b), (c), (j)(1), and (j)(3); and
■ c. Adding paragraphs (m) and (n).

The revisions and additions read as follows:

§ 98.56 Data reporting requirements.

In addition to the information required by § 98.3(c), each annual report must contain the information specified in paragraphs (a) through (n) of this section at the facility level.

* * * * *

(m) Annual quantity of cyclohexane fed to all production lines combined (metric tons).

(n) Annual percent N_2O emission reduction for all production units combined.

* * * * *

Subpart F—[AMENDED]

■ 8. Section 98.66 is amended by:
■ a. Removing and reserving paragraphs (a) and (c)(2);
■ b. Revising paragraphs (c)(3), (e)(1), and (f)(1); and
■ c. Removing and reserving paragraph (g).

The revisions read as follows:

§ 98.66 Data reporting requirements.

* * * * *

(c) * * *

(3) The last date when the smelter-specific-slope coefficients (or overvoltage emission factors) were measured.

* * * * *

(e) * * *

(1) Annual anode consumption if using the method in § 98.63(g).

* * * * *

(f) * * *

(1) Annual paste consumption if using the method in § 98.63(g).

* * * * *

Subpart G—[AMENDED]

■ 9. Section 98.76 is amended by:
■ a. Removing and reserving paragraph (b)(2) and paragraphs (b)(7) through (11); and
■ b. Adding paragraphs (b)(14) and (b)(15).

The revisions and additions read as follows:

§ 98.76 Data reporting requirements.

* * * * *

(b) * * *

(14) Annual ammonia production (metric tons).

(15) Annual methanol production (metric tons), if this quantity is not reported under subpart X of this part.

Subpart H—[AMENDED]

■ 10. Section 98.86 is amended by:
■ a. Removing and reserving paragraphs (b)(2), (b)(5), (b)(6), (b)(8), (b)(10), and (12);
■ b. Revising paragraphs (b)(13) and (15); and
■ c. Adding paragraphs (b)(16) through (18).

The revisions and additions read as follows:

§ 98.86 Data reporting requirements.

* * * * *

(b) * * *

(13) Name of raw kiln feed or raw material.

* * * * *

(15) Method used to determine the monthly clinker production from each kiln.

(16) Annual clinker production (metric tons).

(17) Annual average clinker CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton clinker produced).

(18) Annual average CKD CO_2 emission factor for the facility, averaged across all kilns (metric tons CO_2/metric ton CKD produced).

Subpart K—[AMENDED]

■ 11. Section 98.116 is amended by:
■ a. Removing and reserving paragraphs (b), (e)(4), and (e)(5); and
■ b. Revising paragraph (e)(6).

The revisions read as follows:

§ 98.116 Data reporting requirements.

* * * * *

(e) * * *

(6) List the method used for the determination of carbon content for each material included for the calculation of annual process CO_2 emissions for each EAF (*e.g.,* supplier provided information, analyses of representative samples you collected).

* * * * *

Subpart L—[AMENDED]

■ 12. Section 98.126 is amended by:
■ a. Revising paragraph (b)(1);
■ b. Removing and reserving paragraph (b)(2);
■ c. Revising paragraphs (b)(6), (b)(7), and (b)(8)(i) through (iv);
■ d. Removing and reserving paragraphs (b)(8)(v) and (b)(9);
■ e. Revising paragraph (c)(1);
■ f. Removing and reserving paragraph (c)(2);
■ g. Revising paragraph (d); and
■ h. Removing and reserving paragraphs (f)(1), (g)(1), and (h)(2).

The revisions read as follows:

§ 98.126 Data reporting requirements.

* * * * *

(b) * * *

(1) If you calculate the relative and absolute errors under § 98.123(b)(1), the absolute and relative errors calculated under paragraph § 98.123(b)(1).

* * * * *

(6) The chemical formula of each fluorine-containing reactant that is fed into the process.

(7) The chemical formula of each fluorine-containing product produced by the process.

(8) * * *

(i) The chemical formula of each fluorine-containing product that is removed from the process and fed into the destruction device.

(ii) The chemical formula of each fluorine-containing by-product that is removed from the process and fed into the destruction device.

(iii) The chemical formula of each fluorine-containing reactant that is removed from the process and fed into the destruction device.

(iv) The chemical formula of each fluorine-containing by-product that is removed from the process and recaptured.

* * * * *

(c) * * *

(1) The identity of the process activity used to estimate emissions (*e.g.,* product produced or reactant consumed).

* * * * *

(d) *Reporting for missing data.* Where missing data have been estimated pursuant to § 98.125, you must report:

(1) The reason the data were missing, the length of time the data were missing, and the method used to estimate the missing data.

(2) Estimates of the missing data for all missing data associated with data elements required to be reported in this section.

* * * * *

Subpart N—[AMENDED]

■ 13. Section 98.146 is amended by revising paragraph (b)(2) and removing and reserving paragraphs (b)(4) and (b)(6) to read as follows:

§ 98.146 Data reporting requirements.

* * * * *

(b) * * *

(2) Annual quantity of each carbonate-based raw material charged (tons) to all furnaces combined.

* * * * *

Subpart O—[AMENDED]

■ 14. Section 98.156 is amended by:
■ a. Removing and reserving paragraphs (a)(2), (a)(7) through (10), (b)(1), and (b)(2);
■ b. Revising paragraph (d) introductory text; and
■ c. Removing and reserving paragraphs (d)(1), (d)(5), and (e)(1).

The revisions read as follows:

§ 98.156 Data reporting requirements.

* * * * *

(d) If the HFC–23 concentration measured pursuant to § 98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), the facility shall report the following:

* * * * *

Subpart P—[AMENDED]

■ 15. Section 98.166 is amended by:
■ a. Revising the introductory text;
■ b. Removing and reserving paragraphs (b)(2), (b)(5), and (b)(6); and
■ c. Adding paragraphs (b)(7) and (e).

The revisions and additions read as follows:

§ 98.166 Data reporting requirements.

In addition to the information required by § 98.3(c), each annual report must contain the information specified in paragraphs (a) or (b) of this section, as appropriate, and paragraphs (c) through (e) of this section:

* * * * *

(b) * * *

(7) Name and annual quantity (metric tons) of each carbon-containing fuel and feedstock.

* * * * *

(e) Annual methanol production (metric tons), if this quantity is not reported under subpart X of this part.

Subpart Q—[AMENDED]

■ 16. Section 98.176 is amended by:
■ a. Revising paragraph (b);
■ b. Removing and reserving paragraphs (e)(1), (e)(3), (e)(4); and adding paragraph (e)(6); and
■ c. Removing and reserving paragraphs (f)(2) through (4), and (g).

The revisions and additions read as follows:

§ 98.176 Data reporting requirements.

* * * * *

(b) If a CEMS is used to measure CO_2 emissions, then you must report the annual production quantity for the production unit (in metric tons) for taconite pellets, coke, sinter, iron, and raw steel.

* * * * *

(e) * * *

(6) The information specified in paragraphs (e)(6)(i) through (vi) of this section aggregated for all process units for which CO_2 emissions were determined using the mass balance method in § 98.173(b)(1), except as provided in § 98.174(b)(4).

(i) The annual mass (metric tons) of all gaseous, liquid, and solid fuels (combined) used in process units for which CO_2 emissions were determined using Equations Q–1 through Q–7 of this section, calculated as specified in Equation Q–9 of this section.

$$Fuel = \left(\sum_{i=1}^{n} F_{g,i} * \frac{MW_i}{MVC} * 0.001 + F_{l,i} * \rho_{l,i} * 0.001 + F_{s,i}\right) \quad \text{(Eq. Q-9)}$$

Where:

Fuel = Annual mass of all gaseous, liquid, and solid fuels used in process units (metric tons).

n = Number of process units where fuel is used.

$F_{g,i}$ = Annual volume of gaseous fuel combusted (''(F_g)'' in Equations Q–1, Q–4 and Q–7 of this section) for each process (scf).

MW_i = Molecular weight of gaseous fuel used in each process (kg/kg-mole).

MVC = Molar volume conversion factor at standard conditions, as defined in § 98.6. Use 849.5 scf per kg mole if you select 68 °F as standard temperature and 836.6 scf per kg mole if you select 60 °F as standard temperature.

$F_{l,i}$ = Annual volume of the liquid fuel combusted (''(F_l)'' included in Equation Q–1 of this section) for each process unit (gallons).

$F_{s,i}$ = Annual mass of the solid fuel combusted (''(F_s)'' in Equation Q–1 of this section) for each process unit (metric tons).

$\rho_{l,i}$ = Density of the liquid fuel (kg/gallon).

0.001 = Conversion factor from kg to metric tons.

(ii) The annual mass (metric tons) of all non-fuel material inputs (combined) specified in Equations Q–1 through Q–7 of this section, calculated as specified in Equation Q–10 of this section.

$$NFI = \left(\sum_{i=1}^{n} O + Iron + Scrap + Flux + Carbon + Coal + Feed + Electrode + Steel_{in} + Ore + Other\right) \quad \text{(Eq. Q-10)}$$

Where:

NFI = Annual mass of all non-fuel inputs (to all process unit types) specified in Equations Q–1 through Q–7 of this section (metric tons).

n = Number of process units, all process types.

O = Annual mass of greenball (taconite) pellets fed to the taconite furnace(s) (metric tons).

Iron = Annual mass of molten iron charged to the basic oxygen furnace(s) plus annual mass of direct reduced iron charged to the EAF(s) (metric tons).

Scrap = Annual mass of ferrous scrap charged to the basic oxygen furnace(s) and EAF(s) (metric tons).

Flux = Annual mass of flux materials charged to the basic oxygen furnace(s) and EAF(s) (metric tons).

Carbon = Annual mass of carbonaceous materials (e.g., coal, coke) charged to the basic oxygen furnace(s), EAF(s), and direct reduction furnace(s) (metric tons).

Coal = Annual mass of coal charged to the coke oven battery(s) (metric tons).

Feed = Annual mass of sinter feed material charged to the sinter process(es) (metric tons).

Electrode = Annual mass of carbon electrode consumed in the EAF(s) (metric tons).

$Steel_{in}$ = Annual mass of molten steel charged to the decarburization vessels (metric tons).

Ore = Annual mass of iron ore or iron ore pellets fed to the direct reduction furnace(s) (metric tons).

Other = Annual mass of other materials charged to the direction reduction furnace(s) (metric tons).

(iii) The annual mass (metric tons) of all solid and liquid products and byproducts (combined) specified in Equations Q–1 through Q–7 of this section, calculated as specified in Equation Q–11 of this section.

$$Products = \left(\sum_{i=1}^{n} P + R + Steel_{out} + Slag + Coke + Sinter + Iron + NM\right) \quad \text{(Eq. Q-11)}$$

Where:

Products = Annual mass of all solid and liquid products and by-products (from all process units) specified in Equations Q–1 through Q–7 of this section (metric tons).

n = Number of process units, all types.

P = Annual mass of fired pellets produced by the taconite furnace (metric tons).

R = Annual mass of air pollution control residue from all process units (metric tons).

$Steel_{out}$ = Annual mass of steel produced by the basic oxygen furnace(s), EAF(s) and decarburization vessel(s) (metric tons).

Slag = Annual mass of slag produced by the basic oxygen furnace(s) and EAF(s) (metric tons).

Coke = Annual mass of coke produced by the non-recovery coke batteries (metric tons).

Sinter = Annual mass of sinter produced from the sinter process(es) (metric tons).

Iron = Annual mass of iron produced from the direct reduction furnace (metric tons).

NM = Annual mass of non-metallic materials produced by the direct reduction furnace (metric tons).

(iv) The weighted average carbon content of all gaseous, liquid, and solid fuels (combined) included in Equation Q–9 of this section, calculated as specified in Equation Q–12 of this section.

$$CF_{avg} = \frac{\left(\sum_{i=1}^{n} F_{g,i} * \frac{MW_i}{MVC} * C_{gf,i} * 0.001 + F_{l,i} * C_{lf,i} * 0.001 + F_{s,i} * C_{sf}\right)}{Fuel} \quad \text{(Eq. Q-12)}$$

Where:

CF_{avg} = Weighted average carbon content of all gaseous, liquid, and solid fuels included in Equation Q–9 of this section (weight fraction).

n = Number of gaseous, liquid, and solid fuel input to each process unit as used in Equation Q–9.

$C_{gf,i}$ = Average carbon content of the gaseous fuel used in each process, from the fuel analysis results (kg C per kg of fuel).
$C_{lf,i}$ = Carbon content of the liquid fuel used in each process, from the fuel analysis results (kg C per gallon of fuel.
C_{sf} = Carbon content of the solid fuel used in each process, from the fuel analysis (expressed as a decimal fraction, e.g., 95% = 0.95).
Fuel = Annual mass of all gaseous, liquid, and solid fuels used in process units (metric tons), as calculated in Equation Q–9.

(v) The weighted average carbon content of all non-fuel inputs to all process units (combined) included in Equation Q–10 of this section, calculated as specified in Equation Q–13 of this section.

$$CI_{avg} = \frac{\left(\sum_{i=1}^{n} NFI_i * C_{NFIi}\right)}{NFI} \quad \text{(Eq. Q-13)}$$

Where:
CI_{avg} = Weighted average carbon content of all non-fuel inputs to all process units included in Equation Q–10 of this section (weight fraction).
n = Number of non-fuel inputs to all process units as used in Equation Q–10.
NFI_i = Annual mass of each non-fuel input used in Equation Q–10 (metric tons).
C_{NFIi} = Average carbon content of each non-fuel input used in Equation Q–10 (expressed as a decimal fraction).
NFI = Total of all non-fuel inputs to all process units (metric tons).

(vi) The weighted average carbon content of all solid and liquid products and byproducts from all process units (combined) included in Equation Q–11 of this section, calculated as specified in Equation Q–14 of this section.

$$CP_{avg} = \frac{\left(\sum_{i=1}^{n} Product_i * C_{pi}\right)}{Products} \quad \text{(Eq. Q-14)}$$

Where:
CP_{avg} = Weighted average carbon content of all solid and liquid products and byproducts from all process units (weight fraction).
n = Number of products and byproducts from each process unit as used in Equation Q–11 of this section.
$Product_i$ = Annual mass of each product or byproduct used in Equation Q–11 of this section (metric tons).
$C_{p,i}$ = Average carbon content of each product or byproduct used in Equation Q–11 of this section (expressed as a decimal fraction).
Products = Mass of all products and byproducts from all process units, calculated in Equation Q–11 of this section (metric tons).

* * * * *

Subpart R—[AMENDED]

■ 17. Section 98.186 is amended by removing and reserving paragraphs (b)(6) and (b)(7); and revising paragraph (b)(8) to read as follows:

§ 98.186 Data reporting procedures.

* * * * *

(b) * * *

(8) List the method used for the determination of carbon content for each material used for the calculation of annual process CO_2 emissions using Equation R–1 of this subpart for each smelting furnace (*e.g.,* supplier provided information, analyses of representative samples you collected).

* * * * *

Subpart S—[AMENDED]

■ 18. Section 98.196 is amended by:
■ a. Revising paragraph (b) introductory text;
■ b. Removing and reserving paragraphs (b)(2), (b)(3), (b)(5), (b)(6), (b)(8), (b)(10), (b)(11), and (b)(12); and
■ c. Adding paragraph (b)(18).

The revisions and additions read as follows:

§ 98.196 Data reporting requirements.

* * * * *

(b) If a CEMS is not used to measure CO_2 emissions, then you must report the information listed in paragraphs (b)(1) through (18) of this section.

* * * * *

(18) Annual quantity (metric tons) of lime product sold, by type.

Subpart U—[AMENDED]

■ 19. Section 98.216 is amended by removing and reserving paragraphs (b), (e)(1), (e)(2), and (f).

Subpart V—[AMENDED]

■ 20. Section 98.226 is amended by:
■ a. Revising the introductory text;
■ b. Removing and reserving paragraphs (d), (m)(1), and (m)(3); and
■ c. Adding paragraph (q).

The revisions and additions read as follows:

§ 98.226 Data reporting requirements.

In addition to the information required by § 98.3(c), each annual report must contain the information specified in paragraphs (a) through (q) of this section.

* * * * *

(q) Annual percent N_2O emission reduction for all production units combined.

Subpart X—[AMENDED]

■ 21. Section 98.246 is amended by:
■ a. Revising paragraph (a) introductory text and paragraphs (a)(2) and (a)(4);
■ b. Adding paragraphs (a)(12) and (13);
■ c. Revising paragraph (b) introductory text;
■ d. Removing and reserving paragraphs (b)(5)(iii) and (b)(5)(iv); and
■ e. Adding paragraphs (b)(9) and (b)(10).

The revisions and additions read as follows:

§ 98.246 Data reporting requirements.

* * * * *

(a) If you use the mass balance methodology in § 98.243(c), you must report the information specified in paragraphs (a)(1) through (a)(13) of this section for each type of petrochemical produced, reported by process unit.

* * * * *

(2) The type of petrochemical produced, names of products, and names of carbon-containing feedstocks.

* * * * *

(4) The temperature (in °F) at which the gaseous feedstock and product volumes used in Equation X–1 of this subpart were determined.

* * * * *

(12) Name and annual quantity (in metric tons) of each carbon-containing feedstock included in Equations X–1, X–2, and X–3 of § 98.243 of this subpart.

(13) Name and annual quantity (in metric tons) of each product included in

Equations X–1, X–2, and X–3 of § 98.243 of this subpart.

(b) If you measure emissions in accordance with § 98.243(b), then you must report the information listed in paragraphs (b)(1) through (b)(10) of this section.

* * * * *

(9) Name and annual quantity (in metric tons) of each carbon-containing feedstock.

(10) Name and annual quantity (in metric tons) of each carbon-containing co-product.

* * * * *

Subpart Y—[AMENDED]

■ 22. Section 98.256 is amended by:
■ a. Revising paragraphs (e)(6) and (e)(7) introductory text;
■ b. Removing and reserving paragraph (e)(7)(ii);
■ c. Revising paragraphs (e)(9) and (e)(10);
■ d. Adding paragraph (e)(11);
■ e. Revising paragraphs (f)(7) and (f)(10) through (13);
■ f. Removing and reserving paragraph (h)(4);
■ g. Revising paragraphs (h)(5), (i)(5), (i)(7), and (i)(8);
■ h. Removing and reserving paragraph (j)(2);
■ i. Revising paragraphs (j)(5) through (9), (k)(3), (k)(4), (l)(5), and (m)(3);
■ j. Removing and reserving paragraphs (o)(2)(ii), (o)(4)(ii) through (v), and (o)(6) and (7); and
■ k. Revising paragraph (p)(2).

The revisions and additions read as follows:

§ 98.256 Data reporting requirements.

* * * * *

(e) * * *

(6) If you use Equation Y–1a of this subpart, an indication of whether daily or weekly measurement periods are used, the annual volume of flare gas combusted (in scf/year) and the annual average molecular weight (in kg/kg-mole), and annual average carbon content of the flare gas (in kg carbon per kg flare gas).

(7) If you use Equation Y–1b of this subpart, an indication of whether daily or weekly measurement periods are used, the annual volume of flare gas combusted (in scf/year), the annual average CO_2 concentration (volume or mole percent), the number of carbon containing compounds other than CO_2 in the flare gas stream, and for each of the carbon containing compounds other than CO_2 in the flare gas stream:

* * * * *

(9) If you use Equation Y–3 of this subpart, the number of SSM events exceeding 500,000 scf/day.

(10) The basis for the value of the fraction of carbon in the flare gas contributed by methane used in Equation Y–4 of this subpart.

(11) If using Equation Y–3 of this subpart, report:

(i) Annual quantity of flare gas combusted (in MMscf per year).

(ii) Annual average molecular weight of flare gas combusted (in mmBtu per MMscf).

(iii) Annual average carbon content of flare gas combusted (expressed as a decimal fraction).

(f) * * *

(7) If you use Equation Y–6 of this subpart, the annual average exhaust gas flow rate, $\%CO_2$, and %CO.

* * * * *

(10) If you use Equation Y–8 of this subpart, the basis for the value of the coke burn-off factor, annual throughput of unit, and the average carbon content of coke.

(11) Indicate whether you use a measured value, a unit-specific emission factor, or a default emission factor for CH_4 emissions. If you use a unit-specific emission factor for CH_4, report the basis for the factor.

(12) Indicate whether you use a measured value, a unit-specific emission factor, or a default emission factor for N_2O emissions. If you use a unit-specific emission factor for N_2O, report the basis for the factor.

(13) If you use Equation Y–11 of this subpart, the number of regeneration cycles or measurement periods during the reporting year and the average coke burn-off quantity per cycle or measurement period.

* * * * *

(h) * * *

(5) If you recycle tail gas to the front of the sulfur recovery plant, indicate whether the recycled flow rate and carbon content are included in the measured data under § 98.253(f)(2) and (3). Indicate whether a correction for CO_2 emissions in the tail gas was used in Equation Y–12 of this subpart. If so, then report:

(i) The value of the correction.

(ii) If the following data are not used to calculate the recycling correction factor, report the information specified in paragraphs (h)(5)(ii)(A) through (C) of this section.

(A) The annual volume of recycled tail gas (in scf/year) only.

(B) The annual average mole fraction of carbon in the tail gas (in kg-mole C/kg-mole gas).

(C) Indicate whether you used the default (95%) or a unit specific correction, and if used, report the approach used.

* * * * *

(i) * * *

(5) If you use Equation Y–13 of this subpart, an indication of whether coke dust is recycled to the unit (*e.g.,* all dust is recycled, a portion of the dust is recycled, or none of the dust is recycled).

* * * * *

(7) Indicate whether you use a measured value, a unit-specific emission factor or a default for CH_4 emissions. If you use a unit-specific emission factor for CH_4, report the basis for the factor.

(8) Indicate whether you use a measured value, a unit-specific emission factor, or a default emission factor for N_2O emissions. If you use a unit-specific emission factor for N_2O, report the basis for the factor.

(j) * * *

(5) If you use Equation Y–14 of this subpart, the basis for the CO_2 emission factor used.

(6) If you use Equation Y–15 of this subpart, the basis for the CH_4 emission factor used.

(7) If you use Equation Y–16 of this subpart, the basis for the carbon emission factor used.

(8) If you use Equation Y–16b of this subpart, the basis for the CO_2 emission factor used and the basis for the carbon emission factor used.

(9) If you use Equation Y–17 of this subpart, the basis for the CH_4 emission factor used.

(k) * * *

(3) The total number of delayed coking units at the facility; the total number of delayed coking drums at the facility; and, for each coke drum or vessel, the typical drum outage (*i.e.* the unfilled distance from the top of the drum, in feet).

(4) For each set of coking drums that are the same dimensions, the number of coking drums in the set, and the mole fraction of methane in coking gas (in kg-mole CF_4/kg-mole gas, wet basis).

* * * * *

(l) * * *

(5) The annual volumetric flow discharged to the atmosphere (in scf), and an indication of the measurement or estimation method, annual average mole fraction of each GHG above the concentration threshold or otherwise required to be reported and an indication of the measurement or estimation method, and for intermittent vents, the number of venting events and the cumulative venting time.

(m) * * *

(3) For uncontrolled blowdown systems reporting under § 98.253(k), the basis for the value of the methane

emission factor used for uncontrolled blowdown systems.

* * * * *

(p) * * *

(2) The types of materials loaded that have an equilibrium vapor-phase concentration of methane of 0.5 volume percent or greater, and the type of vessel (barge, tanker, marine vessel, etc.) in which each type of material is loaded.

* * * * *

Subpart Z—[AMENDED]

■ 23. Section 98.266 is amended by removing and reserving paragraphs (f)(5) and (f)(6).

Subpart AA—[AMENDED]

■ 24. Section 98.276 is amended by:

■ a. Revising the introductory paragraph;

■ b. Removing and reserving paragraph (b);

■ c. Revising paragraph (c);

■ d. Removing and reserving paragraphs (d), (f), (g), (h) and (i); and

■ e. Adding paragraphs (l) and (m).

The revisions and additions read as follows:

§ 98.276 Data reporting requirements.

In addition to the information required by § 98.3(c) and the applicable information required by § 98.36, each annual report must contain the information in paragraphs (a) through (m) of this section as applicable:

* * * * *

(c) Basis for determining the annual mass of the spent liquor solids combusted (whether based on T650 om-05 Solids Content of Black Liquor, TAPPI (incorporated by reference, *see* § 98.7) or an online measurement system).

* * * * *

(l) For each pulp mill lime kiln, report the information specified in paragraphs (l)(1) and (2) of this section.

(1) The quantity of calcium oxide (CaO) produced (metric tons).

(2) The percent of annual heat input, individually for each fossil fuel type.

(m) For each chemical recovery furnace and each chemical recovery combustion unit for which you are not using Equation C–2c of this part to calculate CO_2 emissions, report the information specified in paragraphs (m)(1) and (2) of this section.

(1) The annual mass of steam generated (lb steam), individually for each fossil fuel type and for spent liquor solids.

(2) The ratio of the unit's maximum rated heat input capacity to its design rated steam output capacity (mmBtu/lb steam), individually for each fossil fuel type and for spent liquor solids.

Subpart BB—[AMENDED]

■ 25. Section 98.286 is amended by removing and reserving paragraphs (b)(1), (b)(4), and (b)(6).

Subpart CC—[AMENDED]

■ 26. Section 98.296 is amended by removing and reserving paragraphs (b)(5) through (7).

Subpart EE—[AMENDED]

■ 27. Section 98.316 is amended by removing and reserving paragraphs (b)(6) and (b)(9).

Subpart GG—[AMENDED]

■ 28. Section 98.336 is amended by removing and reserving paragraphs (b)(6), (b)(7), and (b)(10).

Subpart TT—[AMENDED]

■ 29. Section 98.466 is amended by:

■ a. Removing and reserving paragraph (c)(3)(i);

■ b. Revising paragraph (c)(3)(ii); and

■ c. Removing and reserving paragraph (c)(3)(iii).

The revisions read as follows:

§ 98.466 Data reporting requirements.

* * * * *

(c) * * *

(3) * * *

(ii) The year of the data used in Equation TT–2 for the waste disposal quantity and production quantity, for each year used in Equation TT–2 of this subpart to calculate the average waste disposal factor (WDF).

* * * * *

[FR Doc. 2013–21773 Filed 9–10–13; 8:45 am]

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Part V

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Texas Golden Gladecress and Threatened Status for Neches River Rose-Mallow; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2012–0064; 4500030113]

RIN 1018–AX74

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Texas Golden Gladecress and Threatened Status for Neches River Rose-Mallow

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, determine *Leavenworthia texana* (Texas golden gladecress) meets the definition of an endangered species and *Hibiscus dasycalyx* (Neches River rose-mallow) meets the definition of a threatened species under the Endangered Species Act of 1973, as amended (Act). This final rule adds these species to the List of Endangered and Threatened Plants and implements the Federal protections provided by the Act for these species.

DATES: This rule is effective on October 11, 2013.

ADDRESSES: This final rule and other supplementary information are available on the Internet at *http://www.regulations.gov* (Docket No. FWS–R2–ES–2012–0064), *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm*, or *http://www.fws.gov/southwest/es/ClearLakeTexas/*. These documents, as well as all supporting information are also available for public inspection, by appointment, during normal business hours at, or by requesting electronic copies from: U.S. Fish and Wildlife Service, Texas Coastal Ecological Services Field Office, 6300 Ocean Drive, Unit 5837, Corpus Christi, TX 78412–5837; by telephone at 361–994–9005; or by facsimile at 361–994–8262.

FOR FURTHER INFORMATION CONTACT: Edith Erfling, Field Supervisor, U.S. Fish and Wildlife Service, Texas Coastal Ecological Services Field Office (see **ADDRESSES**); by telephone 281–286–8282; or by facsimile 281–488–5882. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. On September 11, 2012 (77 FR 55968), we published a proposed rule to list *Leavenworthia texana* (Texas golden gladecress) as an endangered species and *Hibiscus dasycalyx* (Neches River rose-mallow) as a threatened species. In this rule, we are finalizing our proposed determinations for these species under the Act. The Act requires that a final rule be published in order to add any plant species to the List of Endangered and Threatened Plants and to provide that species protections under the Act. We are publishing a final rule on the designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow under the Act elsewhere in today's **Federal Register**. The critical habitat designation final rule and its supporting documents will publish under Docket No. FWS–R2–ES–2013–0027, and can also be found at the locations listed in the **ADDRESSES** section of this rule.

The basis for our action. Under the Act, a species may be determined to be endangered or threatened based on any of the following five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

We have determined that the Texas golden gladecress meets the definition of an endangered species due to the following threats:

- In some cases, a total loss of habitat and plants, and in others a degradation of the herbaceous glade plant communities supporting the Texas golden gladecress. Activities or factors that continue to negatively impact the habitat of the Texas golden gladecress include glauconite quarrying; natural gas and oil exploration, production, and distribution; invasion of open glades by nonnative and native shrubs, trees, and vines, and other weedy species; pine tree plantings in close proximity to occupied glades; herbicide applications that have potential to kill emerging seedlings; and the installation of service improvements, including water and sewer lines, domestic gas lines, or electric lines.
- The inadequacy of existing regulatory mechanisms to protect the Texas golden gladecress or its habitats.
- Other natural or manmade factors, including low numbers of individual plants and few remaining populations.
- The above threats are likely exacerbated by climate change.

We have determined that the Neches River rose-mallow meets the definition of a threatened species due to the following threats:

- Habitat loss and degradation of open habitats on hydric alluvial soils along sloughs, oxbows, terraces, and wetlands of the Neches, Sabine, and Angelina River basins and Mud Creek and Tantabogue Creek basins that support the Neches River rose-mallow. The Neches River rose-mallow's habitat is being lost and degraded by encroachment of nonnative and native plant species, particularly trees; herbicide use; livestock and hog trampling; and alteration of the natural hydrology associated with seasonal flooding to conditions where habitat has been drained or has become permanently flooded. Prolonged or frequent droughts can exacerbate habitat degradation for both species.
- Inadequacy of existing regulatory mechanisms to protect the Neches River rose-mallow or its habitats.
- The above threats are likely exacerbated by climate change.

Peer review and public comment. We sought comments from six independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from four knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and to determine whether or not we had used the best available information. The peer reviewers generally agreed with portions of our assessment, including the threats analysis, and most of our conclusions, although they pointed out areas where additional research would refine our understanding of the two species' habitat requirements and range. The peer reviewers pointed out additional information, clarifications, and suggestions for future research that would inform future surveys to refine the geographic range, and help with management and recovery efforts. Information we received from peer review is incorporated in this final revised designation. We also considered all comments and information we received from the public during the comment periods.

Previous Federal Actions

On September 11, 2012 (77 FR 55968), we published a proposed rule to list the Texas golden gladecress as endangered and the Neches River rose-mallow as threatened, both with critical habitat. On April 16, 2013 (78 FR 22506), we reopened public comment period on the

proposed rule. On May 1, 2013, we held a public hearing to accept oral and written comments on the proposals.

We are publishing a final rule on the designation of critical habitat under the Act (16 U.S.C. 1531 *et seq.*) for the Texas golden gladecress and the Neches River rose-mallow elsewhere in today's **Federal Register**.

Background

Species Information

It is our intent to discuss below only those topics directly relevant to the listing of the Texas golden gladecress as endangered, and the Neches River rose-mallow as threatened, in this final rule. Species information for the Texas golden gladecress and Neches River rose-mallow can also be found in the September 11, 2012 (77 FR 55968), proposed rule.

Texas Golden Gladecress

Taxonomy and Description

Texas golden gladecress is a small, annual, herbaceous plant belonging to the mustard family (Brassicaceae). Dr. M. C. Leavenworth, an Army physician, first collected the taxon in Choctaw County, Oklahoma, in 1835, and the specimens were later described as a new species, *Leavenworthia aurea,* by Torrey (Mahler 1981, pp. 76–77).

From 1836 to 1837, Leavenworth collected similar specimens near the present-day town of San Augustine, San Augustine County, Texas, and these were also identified as *L. aurea.* E. J. Palmer (1915 and 1918), and D. S. and H. B. Correll (1961 to 1962) as cited by Mahler (1981, pp. 83) made later collections of the plant in the San Augustine area. George and Nixon (1990, pp. 117–127) studied and mapped populations in this area between 1979 and 1980. W. H. Mahler studied the collected specimens and their habitat, and described the Texas plants as a new species, *Leavenworthia texana* (Mahler 1987, pp. 239–242), based on differences in morphological characteristics of flowers and leaves, and in chromosome number, between the Oklahoma and Texas plants (Mahler 1987, pp. 239–242).

According to Mahler (1987, p. 240), Texas golden gladecress flower petals were a brighter, deeper yellow than those of *L. aurea,* and the petals were egg-shaped and flat instead of being broad and notched. The *L. texana* had wider-than-long terminal leaf segments that were usually distinctly lobed while *L. aurea's* terminal leaves were essentially unlobed, flat, and more circular. Texas plants had a chromosome number of 2n = 22 (Nixon 1987, pers. comm. in Mahler 1987, pp. 239, 241) while the Oklahoma *L. aurea* had 2n = 48 (Rollins 1963, pp. 9–11; Beck *et al.* 2006, p. 156). We are aware that a recently completed monograph of the genus may have taxonomic implications for the Texas and Oklahoma Leavenworthia species in the future, but several questions, including the differences in chromosome number, remain unresolved and no supporting information that would change the current status of Texas golden gladecress has been published to date (Poole 2011a, pers. comm.).

Texas golden gladecress is a weakly rooted, glabrous (smooth, glossy), winter annual (completes its life cycle in 1 year). Texas golden gladecress is small in stature, less than 3.9 inches (in) (10 centimeters (cm)) in height, making it difficult to find except during flowering or when it bears fruit. The leaves are 0.8–3.1 in (2–8 cm) long and 0.4–0.6 in (1–1.5 millimeters (mm)) wide, forming rosettes at the base of the plant. Terminal leaf segments are wider-than-long, and usually distinctly lobed, with angular teeth. Flowers are bright yellow and borne on scapes (leafless flowering stems or stalks arising from the ground) that are 1.2–3.5 in (3–9 cm) long early in the flowering season. Later in the season, the flowers occur on unbranched flower clusters that come off a single central stem from which the individual flowers grow on small stalks, at intervals. The four petals are bright golden-yellow with a slightly darker base, narrowly obovate (tongue-shaped), 0.3–0.4 in (7–10 mm) long and 0.1–0.2 (3.5–5 mm) wide. The fruit is a slender seed capsule, known as a silique, with a length (0.6–1.2 in (15–30 mm)) that is more than twice its width (0.08–0.22 in (2–5.5 mm)) and that contains 5 to 11 flattened, circular or spherically shaped seeds. The description above was drawn from Poole *et al.* (2007, p. 286), who adapted it from others.

Habitat

Texas golden gladecress occurs within the Pineywoods natural region of easternmost Texas, within the Gulf Coastal Plain Physiographic Region. The region is defined by uplands that are forested by pine dominated woodlands, interspersed with bottomland, mesic slope, and bald cypress-tupelo swamp forests. Water oak and willow oak are prominent in the large stream floodplains, while some ancient sloughs are fringed by planer tree and overcup oaks (Dolezel 2012, pers. comm.). Many of the rare plants of the Pineywoods region, including the Texas golden gladecress and the federally endangered *Lesquerella pallida* (=*Physaria pallida*) (white bladderpod) are found in small-scale plant communities tied to ''geologic and hydrologic conditions that are themselves rather rare on the landscape'' (Poole *et al.* 2007, p. 6).

Based on all documented occurrence records, the Texas golden gladecress is endemic to glade habitats in northern San Augustine and northwest Sabine Counties, Texas, where it is a habitat specialist, occurring only on outcrops of the Weches Geologic Formation (Mahler 1987, p. 240; George and Nixon 1990, p. 120; Poole *et al.* 2007, pp. 286–287). The gladecress grows only in glades on shallow, calcium-rich soils that are wet in winter and spring. These occur on ironstone (glauconite or green-stone) outcrops (Poole *et al.* 2007, p. 286).

All species within the small genus *Leavenworthia* share an adaptation to glade habitats that have unique physical characteristics, the most important being a combination of shallow soil depth and high calcium content (dolomitic limestone or otherwise calcareous soils) where the soil layers have been deposited in such a manner that they maintain temporary high-moisture content at or very near the surface (Rollins 1963, pp. 4–6). Typically, only a few inches of soil overlie the bedrock, or, in spots, the soil may be almost lacking and the surface barren. Within the Weches Formation glades, gladecress habitat occurs on thin soils that overlie calcium-rich parent materials where the calcium is derived from a myriad of fossilized, calcium-dominated oyster shells and other marine life (Dolezel 2012, pers. comm., p. 1).

The glade habitats that support all *Leavenworthia* species are extremely wet during the late winter and early spring and then dry to the point of being parched in summer (Rollins 1963, p. 5). These glades can vary in size from as small as a few meters to larger than 0.37 square miles (mi^2) (1 square kilometer (km^2)) and are characterized as having an open, sunny aspect (lacking canopy) (Quarterman 1950, p. 1; Rollins 1963, p. 5). The landscape position of the glades may also play a role in assuring the cyclic moisture regime required by glade vegetation communities.

The Weches Geologic Formation consists of Eocene-age deposits that lie mostly in an east-west band of ancient marine sediments. These sediments were deposited in a line roughly parallel to the Gulf of Mexico, running from Sabine to Frio Counties, Texas. The Weches Formation also extends over 100 miles to the north of Nacogdoches County into Smith, Wood, Upshur, Marion, and Cass Counties, Texas, and even into Miller County, Arkansas

(Godwin 2012, pers. comm., p. 2). A layer of glauconite clay is either exposed at the surface or covered by a thin layer of calcareous (calcium-containing) sediment measuring as deep as 20 in (50 cm) (George and Nixon 1990, pp. 117–118). Glauconite is a characteristic mineral of marine depositional environments, presenting a greenish color when initially exposed to the atmosphere, and later turning red (Davis 1966, pp. 17–18; Nemec 1996, p. 7). The area of the Weches outcrops in San Augustine County is referred to as the ''redlands'' (Ritter 2011b, pers. comm.). The glauconite is very friable (crumbly) and has low resistance to weathering (Geocaching.com 2010, p. 5). The soils overlying the clay layer are typically rocky and shallow (George 1987, p. 3) and at all Texas golden gladecress sites are classified within the Nacogdoches, Trawick, or Bub soils series (United States Department of Agriculture 2009, entire).

Within the known range of the Texas golden gladecress, Weches outcrops occur in a band averaging 5 miles (mi) (8 kilometers (km)) in width that parallels Texas State Highway (SH) 21 through northern San Augustine and northwestern Sabine Counties (Sellards *et al.* 1932 in Diggs *et al.* 2006, p. 56). It has been deeply dissected by erosion that created islands of thin, loamy, alkaline soils (pH 7–8), within the normally deep, sandy, acidic soils (pH 4–5) of the Pineywoods region. The glauconite layer of the Weches Formation is fairly impermeable to water, producing saturated, thin upper soils in late fall through spring, that dry out and harden during summer months (George 1987, pp. 2–4; Bezanson 2000 in Diggs *et al.* 2006, p. 56). Down-slope seepage across the Weches terraces may also be important to maintain the hydrology required by the gladecress (Singhurst 2003, pers. comm.). The cyclic moisture regime and the alkalinity of the soils produce conditions unique to the Weches outcrops. Certain plants, such as the Texas golden gladecress, have evolved to live within these specialized geologic formations (Mahler 1987, p. 240; George and Nixon 1990, pp. 120–122).

Biology

The Texas golden gladecress occurs in open, sunny, herbaceous-dominated plant communities in Weches glades, in some areas that also support the white bladderpod (Bridges 1988, pp. II–7, II–35, and II–35 supplement). Unlike the white bladderpod, which can grow throughout the glade, the gladecress is restricted to the outcrop rock faces within the glades where it occurs (Nemec 1996, p. 8).

As is true of other *Leavenworthia* species (Rollins 1963, p. 6), Texas golden gladecress seeds germinate during fall rains and the plants overwinter as small, tap-rooted rosettes. Flowering begins in February and continues into March, and sometimes as late as April, depending on annual weather conditions. Rollins (1963, p. 6) noted that the blooming period of *Leavenworthia* varied according to the temperature, moisture, and severity of winter freezes. Fruit production is generally seen from March into April. The plants respond to drying of the soil by dropping seed and withering away, usually in April and May (Singhurst 2011b, pers. comm.). By summer months, gladecress plants are dead, replaced by other low-growing species such as *Sedum pulchellum* (stonecrop), *Portulaca oleracea* (common purslane), *Phemeranthus parviflorus* (sunbright), and *Eleocharis occulata* (limestone spikerush) (Singhurst 2012e, pers. comm.). Although seed dispersal has not been studied in Texas golden gladecress, observations indicate that seeds fall within 6–8 in (15–20 cm) of the parent plant (Singhurst 2011c, pers. comm.).

Little is known about the Texas golden gladecress's seed bank as this aspect of life history has not been researched. The species did reappear at two sites where it was believed lost due to habitat degradation. A population location, the Geneva Site in Sabine County, was bulldozed in late March 1999, one week after flowering plants were counted; the site was subsequently described by the surveyor as ''lost or destroyed'' (Turner 1999, pers. comm.). However, plants were found again at this site in 2003, and continued to emerge in succeeding years. At a second site in San Augustine County (Chapel Hill Site) a thick growth of the invasive, nonnative shrub, *Rosa bracteata* (Macartney rose) was removed in 1995. Post-brush removal, the Texas golden gladecress reappeared after not having been seen for the previous 10 years (Nemec 1996, p. 1). The species' reappearance after these habitat alterations suggests a persistent seed bank, although there have been no formal studies to verify this hypothesis.

Rare plants often have adaptations such as early blooming, extended flowering, or mixed-mating systems that allow them to persist in small populations (Brigham 2003, p. 61). The Texas golden gladecress is believed to be self-compatible and able to self-fertilize (Rollins 1963, p. 19; Beck *et al.* 2006, p. 153). The species may have evolved for self-fertilization when conditions are not favorable for insect-vectored pollination, lessening the species' dependence on pollinators for cross-pollination and survival and potentially making the species more resilient under conditions of small, geographically separated populations. Rollins (1963, pp. 41–47) speculated that species in the genus *Leavenworthia* evolved from a self-incompatible original ancestor to self-compatibility in some species to persist with a diminishing overlap in seasonality of adequate moisture in glade habitats versus availability of insect pollinators (e.g., as the southeastern part of the United States warmed, the required moisture levels for germination and flowering became more restricted to winter months when insect availability was lower). This could help to enhance the species' persistence, at least in the short term, in a fragmented landscape where habitat patches may be so distant from one another as to preclude pollinators' movements between them. Even so, the presence of other flowering plants at gladecress sites could help to attract and maintain a reservoir of potential pollinators, thereby increasing the chances for the gladecress to be cross-pollinated. This would benefit the species by potentially providing, or maintaining, a higher level of genetic diversity.

Distribution and Status

Texas golden gladecress is known from eight locations (historic and extant), including one introduced population, all within a narrow zone that parallels SH 21 in San Augustine, Sabine, and Nacogdoches Counties (Texas Natural Diversity Database (TXNDD) 2012b). Table 1 (below) summarizes the location information for Texas golden gladecress populations (taken from the TXNDD 2012b). Based on known population locations, taken from the TXNDD element occurrence records from 1974–1988, the Weches glades of San Augustine County appear to be the center of the species' distribution; to date all but one of the naturally occurring populations were found in this area, with the other naturally occurring population in Sabine County. One population was successfully introduced into Nacogdoches County. All locations (historic and extant) occur primarily on privately owned land, although the plants do extend onto the Texas Department of Transportation (TXDOT) right-of-way (ROW) at two sites: Geneva Site and Caney Creek Glade Site 1.

TABLE 1—LOCATION AND STATUS OF TEXAS GOLDEN GLADECRESS POPULATIONS

County	Population designation	Status	Historic site description	Land owner
San Augustine	Caney Creek Glade Site 1	Extant	By 2001, was less than 100 ft^2 (9 m^2).	Private & State ROW.
San Augustine	Chapel Hill (also known as Tiger Creek).	Extant	Tract on which Texas golden gladecress was found was less than 0.25 ac (0.1 ha).	Private.
Sabine	Geneva	Extant	Size of site was ~ 100 ft^2 (9 m^2).	Private & State ROW.
Nacogdoches	Simpson Farms (introduced population).	Extant through 2009. Site was eradicated by pipeline in 2011.	Population ~ 200 ft^2 (18 m^2) in size.	Private.
San Augustine	Caney Creek Glade Site 7	Status unknown. Possibly extant—not accessible in last 24 years.	Small population; locally abundant in very small area.	Private.
San Augustine	Caney Creek Glade Site 2	Site is now excavated pits	Site was ~ 3 ac (1.21 ha)	Private.
San Augustine	Caney Creek Glade Site 6	Site is now excavated pits. Possibility that some habitat and plants remain on adjacent, unquarried land.	Multiple tracts totaling ~ 10 ac. Sites 6, 7, and 8 in different areas on these tracts. Site 6 was the largest known population (thousands of plants).	Private.
San Augustine	Caney Creek Glade Site 8	Site lost to excavated pits	Very small population on a degraded outcrop.	Private.

Four Texas golden gladecress populations (Caney Creek Glade 1, Chapel Hill, Geneva, and Simpson Farms) were present through 2009, the last year that the plants were surveyed and counted (Singhurst 2011a, pers. comm.). In October 2011, Service and Texas Parks and Wildlife Department (TPWD) biologists visited all four known locations and found that the plants and habitat at the introduced site in Nacogdoches County (Simpson Farms) had been removed by a recent pipeline installation. The habitat was still intact at the other three locations in October 2011 (Cobb 2011, pers. comm.), and the presence of the plants themselves was subsequently observed at the three accessible sites in February 2012 (Singhurst 2012f, p. 1).

Three San Augustine County occurrences (Caney Creek Glade Sites 2, 6, and 8) were believed extirpated, at least in large part, by construction of glauconite mines (open pits) beginning in the late 1990s. These occurrences may have been part of a much larger glade complex, referred to as the Caney Creek Glade Complex, that included the Caney Creek Glade Sites 1, 2, 6, 7, and 8. These five occurrences were located within an area extending out to 1.5 mi (2.41 km) to the east of the town of San Augustine (TXNDD 2012b, unpaginated). In 1987, the Caney Creek Glade Site 6 was described as having Texas golden gladecress plants ''in the thousands'' (TXNDD 2012b, unpaginated). Access to these three privately owned sites is prohibited; therefore, we cannot ascertain whether any plants or their habitat are still present on the peripheries of the mined areas.

For Caney Creek Glade Site 7, the last TXNDD (2012b, unpaginated) element of occurrence record was from 1988, a time when the presence of Texas golden gladecress was confirmed at the site. The site was visited by a forestry consultant in 1996, who described the glade as being intact at that time. This individual revisited the site in 2000, and found invasive woody plants encroaching into the glade (Walker 2012, p. 4). There were no further site visits due to lack of access to this privately owned tract. Satellite images taken as recently as 2008 show this site has not been altered by construction or quarrying (mining), but the open glade appearance at this site has changed to one of dense growth of woody vegetation, so it is unknown whether the plants still occur at the site.

Table 2 presents estimates for extant Texas golden gladecress populations between 1999 and 2009 (Service 2010a, p. 4). The total number of plants seen in 2009 was 1,108. The largest population, consisting of 721 plants, was at the introduced site in Nacogdoches County, a site that was lost in 2011, when a pipeline route was constructed through it. This represents a loss of 65 percent of the known plants. After 2009, approximately 400 plants in three populations were all that remained of this species. The number of Texas golden gladecress plants fluctuated widely from year to year, likely due to differences in precipitation levels between years. The Texas golden gladecress is dependent on fall and winter rain to saturate the sediment and produce the seeps and pooling it requires, and drought conditions were noted to have a significant negative effect on reproduction (Turner 2000, p. 1) as seen in the drought years of 1999–2000 (Texas Water Resources Institute 2011, unpaginated) when the Chapel Hill site decreased from 91 to 67 plants and the Caney Creek Glade Site 1 decreased from 490 to 96 plants (Service 2010a, p. 5).

TABLE 2—POPULATION ESTIMATES FOR TEXAS GOLDEN GLADECRESS AT MONITORED SITES

Year	Chapel Hill	Caney Creek Glade 1	Geneva	Simpson Farms
1999	91	490	319	*NS
2000	67	96	NS	NS
2001	96	520	NS	270

TABLE 2—POPULATION ESTIMATES FOR TEXAS GOLDEN GLADECRESS AT MONITORED SITES—Continued

Year	Chapel Hill	Caney Creek Glade 1	Geneva	Simpson Farms
2002	NS	NS	NS	NS
2003	42	NS	57	57
2004	NS	NS	NS	NS
2005	40–50	0	54	2,873
2006	NS	NS	200	NS
2007	200	NS	1,000	1,000
2008	9	NS	49	NS
2009	98	29	260	721

* NS—Not surveyed.

Singhurst (2011a, pers. comm.) referred to the difficulty of trying to determine population trends for the Texas golden gladecress due to the lack of comprehensive numbers for the species. He attributed this data gap to variation in surveyors and their techniques, the inability to see Texas golden gladecress plants under invasive brush, lack of access to multiple sites, and the fluctuation in plant numbers associated with moisture conditions. Nevertheless, despite these limitations, it is evident that there are few remaining populations and that the overall numbers of existing plants are fluctuating. For example, a decrease in plant numbers in 2009 (Singhurst 2009, p. 1) was likely due to drought; however, following significant rains in late fall 2011 and early winter 2012, Singhurst (2012f, pers. comm.) noted higher numbers of plants than the 2009 counts at Geneva, Chapel Hill, and Caney Creek Glade Site 1.

Most of the known populations, historic and extant, were and are restricted to small areas (see Table 1). For example, in San Augustine County, the Chapel Hill site is less than 0.2 acres (ac) (0.1 hectare (ha)) in size and lies between a pasture fence and gravel road southwest of SH 21. The area of the plants at the Caney Creek Glade Site 1 is less than 100 feet squared (ft^2) (9 meters squared (m^2)) in size, on the side of Sunrise Road south of SH 21. In Sabine County, the plants at the Geneva site occupy approximately 100 ft^2 (9 m^2) adjacent to, and west of, SH 21, south of Geneva. The total area occupied by the plants at the remaining three sites covers less than 1.2 ac (0.5 ha). Area sizes for Texas golden gladecress occurrences were taken from the TXNDD element of occurrence records.

Although no new populations of Texas golden gladecress have been found since the late 1980s, there is potential for more Texas golden gladecress to exist across the Weches glades region. Known populations all occur close to roads, suggesting that most searches for the species were nearby to public road access. All known occurrences are on private property, as is all remaining habitat, and surveys cannot be conducted without landowner permission. Effective identification of suitable habitat is needed to survey for new populations. Even in areas of potential Weches glades, as identified using Geographic Systems Information (GIS) data, including aerial, geologic, and hydrologic data sources, the habitat may not contain Texas golden gladecress populations. Between 1999 and 2003, The Nature Conservancy (TNC) used these tools to identify 44 potential sites of Texas golden gladecress and white bladderpod occurrence in the San Augustine glades. The San Augustine glades were delineated by TNC as a subset of the Weches glades for purposes of developing an area conservation plan. The San Augustine glades are located in north-central and northeastern San Augustine County. TNC was granted access to 14 of the 44 sites, but found little Weches glade habitat, and no new Texas golden gladecress or white bladderpod sites (Turner 2003, in Service 2010a, p. 3).

Conservation

The Texas golden gladecress was included as a nested element within the Coastal Plain Carbonate Glades conservation element of the San Augustine Glades Area Conservation Plan developed by TNC of Texas in 2003 (TNC 2003, entire). This plan was envisioned to provide guidance for the conservation and restoration of a network of ecologically functional forests and glades along the Weches Geological Formation in San Augustine County. The plan was generated through TNC's structured conservation planning process, which relied on a science team with expertise in east Texas flora and habitats, including members from academia, botanical institutions, and Federal and State agencies. The conservation planning process concluded that at least 8 viable (self-sustaining, ecologically functioning) populations of Texas golden gladecress, containing an average of 500 individual plants each, at least 1 out of every 5 years, was the target conservation goal for the species (TNC 2003, pp. 8, 12).

Neches River Rose-Mallow

Taxonomy and Description

Hibiscus dasycalyx (Neches River rose-mallow) (Blake and Shiller) is a nonwoody perennial (plant that grows year after year) in the Malvaceae (mallow) family that grows 1.9–7.5 feet (ft) (0.6–2.3 meters (m)) tall (Correll and Johnston 1979, p. 1030). Leaves are alternate and simple, generally t-shaped and deeply three-lobed with petioles (leaf stalks) 1.1–1.9 in (3–5 cm) long (Correll and Johnston 1979, p. 1030). The Neches River rose-mallow generally produces a single creamy white (rarely pink) flower at the base of the leaf stalks along the uppermost branches or stems (Blanchard 1976, pp. 27–28; Warnock 1995, p. 2; Poole *et al.* 2007, pp. 264–265). Because the plants are single to multi-stemmed and each branch or stem can have numerous leaves, the total number of flowers per plant can number in the hundreds (Poole 2013b, pers. comm.). Flowering occurs between June and August (Poole *et al.* 2007, p. 265), sometimes into late October depending on water availability during springtime inundations (Warnock 1995, p. 20; Center for Plant Conservation 2011). Large and numerous stamens are monodelphous, forming a tube that is united with the base of the petals (Klips 1999, p. 270).

The Neches River rose-mallow was first collected by Ivan Shiller on June 23, 1955, at the type locality at SH 94 (also referred to as Apple Springs), Trinity County, Texas, and it was later recognized it as a distinct species (Correll and Johnston 1979, pp. 1030–1031). Blake (1958, p. 277) determined that the Neches River rose-mallow was different from the closely related

Hibiscus laevis (halberdleaf rose-mallow) by examining specimens from the type locality. Gould (1975), Nixon (1985), Hatch *et al.* (1990), Johnston (1990), and Fryxell (all in Warnock 1995, pp. 1–2; Poole 2002, pers. comm.) all recognized the Neches River rose-mallow as a distinct species.

Two similar-looking *Hibiscus* species, *H. laevis* (halberdleaf rose-mallow) and *H. moscheutos* (crimsoneyed or wooly rose-mallow) are wetland species documented in areas where the Neches River rose-mallow occurs. All three of these species have a similar general appearance, but can be separated based on a comparison of external characteristics including leaf structure, and degree of pubescence (fine hairs) on the calyx, leaves, capsule (dry fruit), or seeds (Correll and Correll 1975, p. 1118; Blanchard 1976, p. 5; Warnock 1995, p. 4). Similar to *H. moscheutos,* the Neches River rose-mallow has a hairy calyx but with larger, spreading hairs rather than a covering of small, short hairs (Warnock 1995, pp. 2–3).

Geographically, these three species can be found within similar habitats, but the halberdleaf and the crimsoneyed rose-mallows prefer areas near deeper water and are found along edges of major rivers and streams (Blanchard 1976, pp. 10–14; Poole 2011b, pers. comm.), compared with the Neches River rose-mallow, which is found in side channels and floodplains of major river drainages. Based on the best scientific and commercial data available on the species' morphology, biology, and habitat-specific needs, we conclude that the Neches River rose-mallow is a valid taxon.

Habitat

The Neches River rose-mallow is endemic to the relatively open habitat (Kennedy and Poole 1990, p. 11) of the Pineywoods (or Timber belt) of east Texas (Gould 1975, p. 1; Correll and Johnston 1979, p. 1030), within Cherokee, Houston, Harrison, and Trinity Counties, and has been introduced into Nacogdoches and Houston Counties. Shortleaf-loblolly pine-hardwood forests, longleaf pine (*Pinus palustris*), and loblolly pine forest (*Pinus taeda*) dominate the Pineywoods vegetation region (Telfair 1983, p. 29; Diggs *et al.* 2006, p. 6). More specifically, Neches River rose-mallow is found within seasonally flooded river floodplains as described by Diggs *et al.* (2006), where the natural bottomlands occupy flat, broad portions of the floodplains of major rivers and are seasonally inundated. Loamy to clayey soils seasonally flood and host flood-tolerant species of *Quercus* sp. (oak), *Liquidambar styraciflua* (sweetgum), *Ulmus americana* (American elm), *Nyssa biflora* (swamp tupelo), and *Acer rubrum* (red maple) (Diggs *et al.* 2006, p. 103). Bottomland and floodplain areas may be dominated by *Q. lyrata* (overcup oak). Stands of shortleaf, longleaf, and loblolly pine are not occupied by the Neches River rose-mallow. The common native woody and herbaceous plant associates are listed in Table 3 (Warnock 1995, pp. 14–15; Poole *et. al* 2007, pp. 264–265).

TABLE 3—NATIVE PLANT ASSOCIATES OF NECHES RIVER ROSE-MALLOW

Scientific name	Common name
Native Woody Plant Associates	
Carya aquatica	water hickory.
Cephalanthus occidentalis	common buttonbush.
Celtis laevigata var. *laevigata*	sugar berry.
Fraxinus sp	ash.
Quercus lyrata	overcup oak.
Q. nigra	wateroak.
Liquidambar styraciflua	sweetgum.
Salix nigra	black willow.
Native Herbaceous Plant Associates	
Boehmeria cylindrica	smallspike false nettle.
Brunnichia ovata	buckwheat vine.
Carex lupulina	common hop sedge.
Chasmanthium sessilifolium	longleaf woodoats.
Diodia virginiana	Virginia buttonweed.
Eichhornia crassipes	water hyacinth.
Heliotropium indicum	Indian heliotrope.
Hibiscus moscheutos	crimsoneyed rose-mallow.
H. moscheutos	wooly rose-mallow.
H. laevis (= *H. militaris*)	halberdleaf rose-mallow.
Hydrolea ovata	ovate false fiddleleaf.
Hydrocotyle ranunculoides	floating pennywort.
Juncus effusus	common rush.
Ludwigia leptocarpa	anglestem primrose-willow.
Nuphar lutea	yellow pond-lily.
Phanopyrum gymnocarpon	Savannah-panicgrass.
Panicum rigidulum	redtop panicgrass.
Pluchea foetida	stinking camphorweed.
Polygonum hydropiperoides	swamp smartweed.
Pontederia cordata	pickerelweed.
Rhynchospora corniculata	shortbristle horned beaksedge.
Sesbania herbacea	bigpod sesbania.
Scirpus cyperinus	woolgrass.
Thalia dealbata	powdery alligator-flag.
Trachelospermum difforme	climbing dogbane.

Sites where the Neches River rose-mallow has been found have been described as sloughs, oxbows, terraces, and sand bars. Sites are seasonally inundated or regularly flooded bottomlands (Diggs *et al.* 2006, p. 103) that include low areas (Warnock 1995, p. 13) within the Neches, Sabine, and Angelina River basins and Mud and Tantabogue Creek basins. Soils are classified generically as hydric alluvials (water-saturated soils) of the Inceptisol or Entisol orders (Diggs *et al.* 2006, pp. 46, 79) and although generally water-saturated, can often be surficially dry. The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) completed soils surveys for all counties with known occurrences of the Neches River rose-mallow, and the associated soils are frequently flooded clay loams. Sites are both perennial and intermittent wetlands with water levels between sites varying due to their proximity to water, amount of rainfall, and floodwaters. Intermittent wetlands are inundated during the winter months but become dry during the summer months (Warnock 1995, p. 11). Warnock (1995) noted that seed dispersal is likely by water, and Scott (1997, p. 5) also stated that seed dispersal appears to be entirely water dependent. While water-mediated seed dispersal of the Neches River rose-mallow is highly likely, it is not known that flowing water is required for downstream dispersal of rose-mallow seeds. Rivers of east Texas tend to overflow onto banks and floodplains (Diggs *et al.* 2006, p. 78), especially during the rainy season, thereby dispersing seed. Research has not been done to identify methods of seed dispersal upstream; however, avian species may facilitate this process.

Biology

The Neches River rose-mallow is a perennial that dies back to the ground every year and resprouts from the base; however, the plant still maintains aboveground stems. Longevity of the species is unknown, but it may be long-lived. Cross-pollination occurs (Blanchard 1976, p. 38) within the Neches River rose-mallow populations, and the species has high reproductive potential (fecundity). The number of flowers and fruits per plant were documented during the TPWD's annual monitoring of the Neches River rose-mallow along SH ROWs. The species produced an average of 50 fruits per plant, but seed viability and survivorship are not known (Poole 2012a, pers. comm.). An open canopy is typical within Neches River rose-mallow habitat (Warnock 1995, pp. 11, 13), but plants also grow in partial sun (as is the case at SH 204). Sunlight is needed for blooming, as the blooming period may only last 1 day (Snow and Spira 1993, p. 160).

Potential pollinators of the Neches River rose-mallow may include, but are not limited to, the common bumblebee (*Bombus pensylvanicus),* Hibiscus bee (*Ptilothrix bombiformis),* moths, and the scentless plant bug *Niesthrea louisianica* (Klips 1995, p. 1471; Warnock 1995, p. 20; Warriner 2011, pers. comm.). Both *Hibiscus laevis* and *H. moscheutos* are pollinated by common bumblebees and the Hibiscus bee (Snow and Spira 1993, p. 160; Klips 1999, p. 270). The solitary Hibiscus bee prefers gently sloping or flat areas with sandy or sandy-loam soils for nesting areas (Vaughan *et al.* 2007, pp. 25–26; Black *et al.* 2009, p. 12), and female bees will excavate nest cavities in elevated, hard packed dirt roadways or levees near stands of *Hibiscus* (in this case *H. palustris*) and standing water (Rust 1980, p. 427). Members of the genus *Bombus* (family Apidae) are social bees, predominantly found in temperate zones, nesting underground (Evans *et al.* 2008, p. 6) in sandy soils (Cane 1991, p. 407). Bumblebees nest in small cavities, often underground in abandoned rodent nests, in grass (Black *et al.* 2009, p. 12), or in open, grassy habitat (Warriner 2012a, pers. comm.). Other aboveground-nesting bees that may potentially pollinate the Neches River rose-mallow may include carpenter, mason, and leaf cutter bees that nest in dead snags or twigs or standing dead wood (Warriner 2012a, pers. comm.). Maximum foraging distances of solitary and social bee species are 492 to 1,968 ft (150 to 600 m) (Gathmann and Tscharntke 2002, p. 762) and 263 to 5,413 ft (80 to 1,650 m) (Walther-Hellwig and Frankl 2000, p. 244), respectively. The scentless plant bug is a member of the *Rhopalidae* family found specifically in association with various members of the Malvaceae family. This species is known to deposit eggs on both the vegetative and reproductive parts of mallow plants (Spencer 1988, p. 421). Holes have been eaten in floral parts of Neches River rose-mallow plants, suggesting that the scentless plant bug may be a pollinator as well as a consumer of the Neches River rose-mallow.

Natural fires occurred every 1 to 3 years in east Texas (Landers *et al.* 1990, p. 136; Landers 1991, p. 73) and controlled the overgrowth of longleaf and loblolly pine, as well as nonnative species. In more recent history, humans used fire to suppress overgrowth. Fire suppression allows for sweetgum, oaks, *Carya* sp. (hickories), *Diospyros virginiana* (common persimmon), and *Magnolia grandiflora* (southern magnolia) to invade the natural pine forests (Daubenmire 1990, p. 341; Gilliam and Platt 1999, p. 22), and reduce the open canopy needed by the Neches River rose-mallow. Lack of fire increases the opportunity for nonnative species, such as *Triadica sebifera* (Chinese tallow), to invade these sites.

Distribution and Status

The natural geographic range of the Neches River rose-mallow is within Trinity, Houston, Harrison, and Cherokee Counties, Texas, on SH ROWs and on private and Federal lands. However, the species has been introduced outside of the known geographic range in Nacogdoches County on private land (Mill Creek). In addition, populations of Neches River rose-mallow have been introduced within their natural geographic range on Federal lands in Houston County. In total, there are 12 occurrences of Neches River rose-mallow (see Table 4). However, only 11 of these are within the known geographic range and, as of October 2011, are considered occupied by the Neches River rose-mallow. The Neches River rose-mallow plants within the SH 230 ROW have not been seen since 2002, and the site was considered extirpated. In 2011, Neches River rose-mallow plants were not located at this site, but in 2012, a graduate student from Stephen F. Austin State University reported seeing the Neches River rose-mallow along SH 230 in the ROW somewhere near the former site (Melinchuk 2012, p. 3).

TABLE 4—POPULATION ESTIMATES FOR KNOWN NECHES RIVER ROSE-MALLOW OCCURRENCES

Site	County	First and last observation	Plant estimates (or otherwise noted)
1. Compartment 55, Davy Crockett National Forest (NF).	Houston	2002–2003; 2011	750 in 2002; 500 in 2005; 1,000 in 2006; in 2007 and 2008, no changes from 2006; 750 in 2010; 100–200 plants in October 2011; 407 stems in October 2011.
2. Compartment 16, Davy Crockett NF (introduced).	Houston	2000; 2011	450 in 2000; 115 in 2002; 78 stems in 2003; 40 in 2004; between 20 and 40 in 2005; 50 in 2006; in 2007 and 2008, no changes from 2006; 90 in 2010; 43 stem clusters in 2011.
3. Compartment 11, Davy Crockett NF (introduced).	Houston	2004; 2011	200 in 2004; 75 plants in 2005; 10 in 2006; in 2007 and 2008, no changes from 2006; 7 in 2010; 10 stem clusters in 2011.
4. Compartment 20, Davy Crockett NF (introduced).	Houston	2000; 2011	200–250 in 2000 (also reported that 350 plants introduced); several hundred blossoms in 2001; 70 in summer and fall of 2002; 182 in 2002; 291 stems in 2003; 100 in 2005; 350 in 2006; in 2007 and 2008, no changes from 2006, but only 150 seed pods in 2007; 120 in 2010; 101 stem clusters in 2011.
5. SH 94 ROW-Boggy Slough	Trinity	1955; 2011	100+ in 1968; 50 in 1986; 50 in 1987; 13 in 1988; 7–9 in 1991; 2–3 in 1992; maximum of 27 in 1993; 38 in 1994; 41 in 1995; 16 in 1996 (only a partial survey); 15–20 on private land in 1997; 13 in 1998; 49 in 1999; 17 along ROW and 300 observed on private land in 2000; 15 and 300+ on private land in 2001; 20 along ROW and fewer than 100 observed on private land in 2002; 3 in 2003; 20 and 0 on private land in 2005; none in 2007; 35 along powerline in 2010; 128 stem clusters along ROW in 2011.
6. SH 204 ROW-Mud Creek	Cherokee	1992; 2011	1 in 1992 and 1993; 26 within 3 subpopulations in fall 1993; 1 in 1994–1996; 1 observed then an additional 75 in 1997 under bridge; 1 in 1998; 2 in 1999; 16 in 2000; 5 in 2001; none in 2002; 17 in 2003; none in 2004, 2005, 2008, 2009; 46 in 2010 in 4 subpopulations; 1 plant in one subpopulation in summer 2011; 20 stem clusters in 6 subpopulations in 2011.
7. SH 230 ROW	Houston	1978; 2002	50 in 1991; 58 in 1993; 38 in 1994; 1 in 1995; 2 in 1996; 6 in 1997; 8–13 in 1998; 14 in 1999; 8 in 2000; 4 in 2001;12 in Sept. 2002; none in Oct. 2002, 2003, 2004, 2005, or 2011. Considered extripated.
8. Lovelady	Houston	2011	50–70 in 1991; 7 in 1992; 58 in 1993; several hundred blossoms in 2001; 400 along ROW in 2002; 900 blossoms or seedpods in 2007; observed in 2008, but no estimates; 20 in 2010; 539 stem clusters in 2011.
9. Mill Creek Gardens (introduced)	Nacogdoches	1995; 2011	96 in 1995; hundreds in October 2011.
10. Harrison Site	Harrison	Not observed after 1980	Herbarium specimen was recently confirmed again as *H. dasycalyx,* but site has not been observed since 1980.
11. Champion site	Trinity	1996; 2001	Hundreds in 1997; 300–400 in 2001.
12. Camp Olympia	Trinity	1977; 1978	No estimates. Searches occurred in 1992 and 1993, but no plants were observed.

Populations along SH ROWs include SH 94 in Trinity County, collected in 1955 (Blake 1958, p. 277); SH 204 in Cherokee County, first observed in 1992; and SH 230 in Houston County, first observed in 1978. The TPWD performed annual SH ROW monitoring along SH 94 from 1993 thru 2001 (Poole, 2001, p. 1); along SH 204 from 1993 thru 2003 (Poole 2001, p. 1; TXNDD 2012a, pp. 20–28); and along SH 230 from 1993 thru 2001 (Poole 2001, p. 1). These three ROW populations are separated from one another and are considered distinct. However, the Boggy Slough site consists of several scattered Neches River rose-mallow subpopulations that are located in close proximity to one another. Boggy Slough subpopulations and the SH 94 ROW population are separated by no more than 1.0 km (3,280 ft), and these two sites likely constitute a single, larger population, sharing pollinators and exchanging genetic material (NatureServe 2004, p. 6; Poole 2011c, p. 2). Therefore, in Table 4, they are combined and represented as a single location.

Adjacent lands to the SH 230 ROW were purchased by the Texas Land Conservancy in 2004 (The Texas Land Conservancy 2011), an organization previously known as the Natural Areas Preservation Association (NAPA). The Neches River rose-mallow plants in this site, referred to as Lovelady, are part of a population that included the Neches River rose-mallow plants in the SH 230 ROW. The Neches River rose-mallow plants within the SH 230 ROW have not been observed since 2002, and the site is considered extirpated (TXNDD 2012a, pp. 61–67). The Lovelady site was recently surveyed in 2011, and although 539 stem clusters were found, most were in notably poor condition, being much shorter in stature because of the drought and herbivory (Poole 2012b, pers. comm.; TXNDD 2012a, pp. 14–19). The estimates of Neches River rose-mallow displayed in Table 4 show wide variations in plant numbers. Some of this variation is due to incomplete counts at the sites; in other words, only a portion of the population was counted. Meaningful trends cannot be derived from these population estimates.

Although annual monitoring of the ROW sites was discontinued in the early 2000s, TPWD visited all of the ROW sites in October 2011. In the past, along SH 204 ROW, several subpopulations existed along multiple portions of the ROW; however, several of these subpopulations were gone in 2011. The recent drought conditions have allowed surveyors to count Neches River rose-mallow plants in parts of sites that were not accessible in the past because the sites were too wet. The increase in

numbers of plants at some of the ROW sites may be partially attributed to this.

The Davy Crockett NF, Houston County, Texas, contains four extant sites, three introduced and one natural, of the Neches River rose-mallow. The one natural population is found in compartment 55 located west of the Neches River. This site is considered the most robust of all known extant populations (Poole 2011c, p. 3) and is almost entirely unaltered from its originally observed state as a seasonally wet flatwood pond, with vegetation being distinctly zoned (TXNDD 2012a, p. 29). The three introduced populations are located in compartment 16, which was introduced with 450 plants (Davis 2000, pers. comm.; McCormick 2002, p. 1; Service 2000, p. 3); compartment 20 with 200–250 plants (Davis 2000, pers. comm.; McCormick 2002, p. 2; Service 2000, p. 3); and compartment 11 with about 200 plants (Nemec 2005, pers. comm.). The populations in compartments 16 and 20 were introduced in 2000, while the population in compartment 11 was introduced in 2004 (Service 2007, p. 6). All four of the Davy Crockett NF sites were censused in October 2011, by the Service and TPWD, and all of the introduced sites on the Davy Crockett NF appear to have declined dramatically.

The four remaining Neches River rose-mallow sites have had sporadic monitoring or have not been visited in recent years. In 1995, Stephen F. Austin State University Mast Arboretum planted 96 Neches River rose-mallow plants into a site at Mill Creek Gardens, Nacogdoches County (Scott 1997, pp. 6–7). A conservation easement was placed on this land, and now the site is managed by the Mast Arboretum. Neches River rose-mallow plants at this site were observed in 1997, 1998, 2001, 2009, and 2011 (Creech 2011a, pers. comm.). The introduced plants appear to be doing well; however, nonnatives and native species are becoming more prevalent, and may compete with the Neches River rose-mallow (Creech 2011c, pers. comm.). Another site in Harrison County, Texas, was last verified by a specimen collected in 1980. The identification of this specimen was identified as Neches River rose-mallow and later considered *Hibiscus laevis* (Melinchuk 2012, p. 2). Not until 2011, was it confirmed that the specimen collected was the Neches River rose-mallow (Birnbaum 2011, pers. comm.; TXNDD 2012a, pp. 12–13). Although, the Harrison County site has not been visited since 1980, and drought and severe storms might have impacted this site but without a lack of evidence suggesting the species' extirpation from either threat, we presume that Neches River rose-mallow is extant at this site. Two additional populations occur on private lands in Trinity County: the Camp Olympia and Champion sites, discovered in 1977 and 1996, respectively. The current status of Neches River rose-mallow on the Camp Olympia site is unknown. We consider this site to be extant because we have no evidence that it has been extirpated. The population on the Champion site was observed in 2001; plants were seen, but no plant counts were done.

Conservation

We relied on Pavlik's Minimum Viable Population analysis tool (1996, pp. 127–155) and species' experts to determine the conservation goals of the species. Based on the best known and available scientific information on the species' life-history and reproductive characteristics, we concluded that the conservation goals for the Neches River rose-mallow include 10 viable populations, each containing at least 1,400 individual plants. The species is limited to the Neches, Sabine, and Angelina River basins and the Mud and Tantabogue Creek basins with 11 extant sites throughout this range. However, many of these sites were introduced and are now compromised by threats from feral hog damage, hydrological changes, nonnative and native species encroachment into habitat, construction projects, and herbicide overspray. Future management actions that ameliorate these threats could allow for the species to expand within its known range. The extant populations are generally small. The only site that has come close to reaching the conservation goals is on compartment 55 of the U.S. Forest Service (USFS); however, it still only comprises 53 percent of the needed plants at this site (750 plants were seen in 2010).

Summary of Comments and Recommendations

We requested written comments from the public on the proposed listing for the Texas golden gladecress and Neches River rose-mallow during two comment periods. The first comment period, associated with the publication of the proposed rule (77 FR 55968), opened on September 11, 2012, and closed on November 13, 2012. Newspaper notices inviting general public comment were published in the Houston County Courier, Nacogdoches Daily Sentinel, and Marshall News Messenger. We also requested comments on the proposed listing during a comment period that opened April 16, 2013, and closed on May 16, 2013 (78 FR 22506). We received requests for a public hearing, which was held on May 1, 2013, in Nacogdoches, Texas. Newspaper notices inviting public comment for this second comment period were published in the San Augustine Tribune and Cherokeean Herald in addition to the three papers listed above. We also contacted appropriate Federal, State, and local agencies; scientific experts and organizations; and other interested parties and invited them to comment on the proposed rule during these comment periods.

We received approximately 63 public comments. All substantive information provided during both comment periods has either been incorporated directly into this final determination or is addressed below. Comments addressed below are grouped into general issues specifically relating to the listing of Texas golden gladecress and Neches River rose-mallow.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from six knowledgeable individuals with scientific expertise that included familiarity with the biology and ecology of the Texas golden gladecress and Neches River rose-mallow; the geographic region in which these species occur and characteristics of their habitats, including the unique geology; and land uses common to the region that may bear on the threats to both species. We received responses from four of the peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding listing of the Texas golden gladecress and Neches River rose-mallow. The peer reviewers generally agreed with portions of our assessment, including the threats analysis, and most of our conclusions, although they pointed out areas where additional research would refine our understanding of the two species' habitat requirements and range. The peer reviewers provided additional information, clarifications, and suggestions for future research that would inform future surveys to refine the geographic range and that would help with management and recovery efforts. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

(1) *Comment:* One peer reviewer asked for clarification regarding the

numbers of Texas golden gladecress populations in State highway ROWs. One location in the proposed rule referred three extant sites within State highway ROW; however, another location refers to only two extant populations within State ROWs.

Our Response: We recognize that the language in the proposed rule may be misleading or easily misconstrued because it implies that the three confirmed Texas golden gladecress populations are all located in ROWs. We have changed the language in the referenced paragraph to reflect the fact that only two of the extant populations, Geneva and Caney Creek Glade Site 1, occur in ROWs, which are both managed by TXDOT. The third extant population at Chapel Hill is located on a small tract adjacent to a county road and is not considered to extend into any type of road ROW.

(2) *Comment:* One peer reviewer stated his opinion that that there is no conservation land, fee simple or under easement, for either of these species. He alluded to the land on which these species' habitats occur being some of the cheapest in east Texas and suggested that it would be more cost effective to purchase fee title or conservation easements of small tracts to conserve these species because creation of a series of small protected sites would work well for an endemic species. He indicated that the habitat areas in question have very little commercial value, with the Weches glades having no value for forestry or agriculture. He acknowledged that the value of the Weches Formation for glauconite mining exceeds values for other uses and indicated his opinion that it would be appropriate to estimate the commercial value of the glauconite mined on a site and match this value.

Our Response: We are in agreement with the first part of this comment about the lack of conservation lands for the Texas golden gladecress; however, this is not true for the Neches River rose-mallow. The Texas Land Conservancy has fee title ownership of the land on which the Neches River rose-mallow's Lovelady population in Houston County is located. The Texas Land Conservancy bought this land specifically to conserve the Neches River rose-mallow and manages the site accordingly. The United States Forest Service (USFS) also has Neches River rose-mallow in several compartments, is aware of the species, and manages those compartments to avoid impacts.

Further, the Act requires us to determine if the Texas golden gladecress and Neches River rose-mallow warrant listing solely on the basis of the best scientific and commercial data available as evaluated through our assessment of the five listing factors set forth in the Act. We previously determined that the Texas golden gladecress and Neches River rose-mallow warranted listing under the Act, making them candidate species. However, the listing of these species was precluded by the necessity to commit limited funds and staff to complete higher priority listing actions for other species. The Texas golden gladecress and Neches River rose-mallow have been included in our annual candidate notices of review for multiple years. In our annual review of these species, scientific literature and data have, and continue to, indicate that these species are impacted by ongoing threats. Any future conservation actions, such as purchasing land from willing landowners, or land management efforts to ameliorate threats, will be evaluated as part of the recovery planning process.

(3) *Comment:* Two peer reviewers discussed the geography of the Weches Formation and wondered how it may influence the range of the Texas golden gladecress. One reviewer indicated that it is a common misconception that the Weches Formation centers on Nacogdoches and San Augustine Counties. He pointed out that the Weches Formation also extends over 100 miles (161 km) to the north into Smith, Wood, Upshur, Marion, and Cass Counties in Texas, and even across into Miller County, Arkansas. A second reviewer described the Weches formation as consisting of Eocene age deposits lying mostly in an east-west band. This reviewer further pointed out a northeast to southwest trend in Cherokee County, Texas, proceeding northeastward toward Tyler, Texas. Referencing the U.S. Department of Agriculture's soils surveys of Cherokee, Nacogdoches, Houston, San Augustine, and Sabine Counties, the reviewer indicated that most acreage of Weches Outcrop may occur in Cherokee County. The former reviewer indicated that he was not aware of any systematic surveys of these widely dispersed outcrops for the presence of the endemic glade plants. He recommended that some attention and resources be directed at exploring the other Weches outcrops that stretch north to Cass County and suggested that any ruling by the Service or subsequent recovery plan for Texas golden gladecress include provisions for surveying these areas.

Our Response: The Service recognizes the extent of the Weches Formation reaches the above referenced counties. However, the Service has not found or received any data indicating that the species is present in these other counties. The Service is required to use the best scientific and commercial data available at the time of listing. We relied on all available information regarding the known occurrences of the Texas golden gladecress at the time of listing; none of the known occurrences was reported from outside Sabine and San Augustine Counties (with the exception of the introduced population in Nacogdoches County). Further analysis of geological correlations with the Texas golden gladecress is an issue to be addressed in recovery planning. Furthermore, as a federally listed endangered species, the Texas golden gladecress will be afforded the protections of the Act wherever found.

(4) *Comment:* One peer reviewer pointed out that our assessment of the Weches Formation did not take into account the work of geologists. He suggested referencing the body of work on the chemistry and mineralogy of the Weches by Ernest Ledger and students that document a wide variation in the attributes of the Weches across its range from San Augustine and Nacogdoches Counties, north over 100 miles (161 km) to Cass County. In his opinion, we need to know about the variability of the Weches Formation in terms of available calcium and long-term pH change to identify more potential sites for the Texas golden gladecress. This reviewer indicated that Ledger's chemical analyses of Weches constituent minerals shows hard data on the low-level presence of nutrients in some locations. Some of these may be suitable for mining as soil additives in the future when current sources like phosphate rock deposits are mined-out. Analyses of the chemical composition of the rock should be considered when selecting potential conservation sites. He suggested that a critical look at Ledger's work might show that unusual features of the Weches Formation that promote the occurrence of Texas golden gladecress and associated glade plants are limited to the southern end of the Weches Formation. Similarly, this peer reviewer referred to the known variations in the Weches Formation and suggests that we need a better understanding of the geology and soils conditions underlying Texas golden gladecress in order to plan for future surveys for the species.

Our Response: We recognize that variability of Weches outcrops does exist across the Weches Formation throughout the numerous counties listed above. We agree that a better characterization of the geology and soils underlying known Texas golden gladecress populations could provide useful information. However, there are

likely other factors that characterize individual outcrop sites that may also be important (for additional information, see ''Invasive Species'' under *A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range* of this rule). Further, the Service must use the best available scientific and commercial data available at the time of listing. Determining the chemical components of the geological formations beneath known glade sites is not a feasible accomplishment within the timeframe we have to publish our final determination. This research would be addressed in recovery planning. For purposes of the proposed rule and this final rule to list the Texas golden gladecress, we used the more general Weches Formation outcrops descriptions, and we more specifically relied on the geologic and soils information available from one known Texas golden gladecress population site, as well as from one white bladderpod site. Please see the ''Habitat'' section for the Texas golden gladecress in this final rule for more information.

The commenter did not provide specific references for Ledger's research. However, we attempted to locate research conducted by Ledger on this topic. We were able to locate some of Ledger's research, and we incorporated this into this final rule under the ''Habitat'' section for the Texas golden gladecress. However, this information did not modify our conclusions of our analysis of threats or determination that the species meets the definition of an endangered species under the Act.

(5) *Comment:* One peer reviewer commented that the essential habitat component of Weches outcrops underlying Texas golden gladecress populations is the combination of thin soil over a calcium-rich parent material. In the Weches Formation, the calcium is derived from a myriad of fossilized, calcium-dominated oyster shells and other marine life.

Our Response: The peer reviewer's verbiage was added to the Texas golden gladecress's ''Habitat'' description in this final rule to further illustrate the derivation of calcium from marine organisms that is true of the east Texas Weches Formation and which may be different from habitat of other *Leavenworthia* species.

(6) *Comment:* One peer reviewer indicated that the developed soils that occur near the Weches outcrops are included in the Bub, Trawick, Nacogdoches, or Chireno soil series. He described the Chireno soil series as unique because it is the only ''blackland soil'' in east Texas. Chireno soils are classified as ''mollisols'' or blackland soils and are developed under prolonged grassland habitat. This reviewer used the U.S. Department of Agriculture's soil surveys for Sabine, San Augustine, Nacogdoches, and Houston Counties to estimate roughly 3,000 acres (1,214 ha) of this soil type occurring in a four-county area. He indicated that these soils may underlie prairies (glades) and that Native Americans regularly burned these areas either for protection from wildfires or enemies, or to entice game animals.

Our Response: Although the reviewer does not specifically suggest that we add Chireno soils to the other soils known to support Texas golden gladecress habitat, this is how we have interpreted his comment. Based on the development of these blackland soils being dependent on long-term prairie cover, and the fact that other literature describes the Pineywoods glades as being within prairies, or as part of a combination of prairies and glades, information may indicate the potential for Weches outcrops within this soil series to support the herbaceous glades of which Texas golden gladecress may be a component. Mollisols, of which the Chireno series is one, are soils of grassland ecosystems, characterized by a thick, dark surface horizon that was developed under prolonged grassland habitat (Grunwald 2013, pp. 1–2). We based the soil parameters for Texas golden gladecress habitat on the soil descriptions in the TXNDD's element of occurrence records, the thesis by Robert George (George 1987, entire), and the U.S. Department of Agriculture's soil survey layers underlying all known Texas golden gladecress populations. The known Texas golden gladecress occurrences are all found on shallow, gravelly soils or almost bare bedrock overlying Trawick, Bub, or Nacogdoches soils, situations that would not support dense stands of prairie grasses, at least in the portion of the outcrop where the Texas golden gladecress is growing. Further investigation of the Chireno series for the presence of Texas golden gladecress would be addressed during the recovery process.

(7) *Comment:* One peer reviewer provided us with confirmation that the glade habitat at the Texas golden gladecress population site referred to as Caney Creek Glade 7 was still intact as of spring 1996, when this reviewer visited the site. However, on a second visit in 2000, encroachment by weedy and woody species was prevalent at this site.

Our Response: This comment affirms our 2012 evaluation of this site, as derived from analysis of satellite imagery. As indicated in our proposed rule and this final rule, the population being referenced may still be present as of 2012, but from satellite imagery the site appeared to be overgrown with woody vegetation. Based on the habitat at Caney Creek Glade Site 7 remaining intact (not excavated or built over), with the exception of woody overgrowth, we assume that Texas golden gladecress plants still occupy this site.

(8) *Comment:* One peer reviewer relayed personal observations that accumulation of pine leaf litter and eventual degradation of the material supports the germination of pine seed. This reviewer indicated that this likely happens because the leaf litter debris provides a small but steady increase of soil depth on the rocky, thin soil common in the Weches glades.

Our Response: This comment supports the data in our proposed rule and this final rule to list the Texas golden gladecress, which state that planting of pine trees in close proximity to small glades may produce leaf litter that can accumulate within a glade, sometimes covering its surface and smothering smaller glade plants. As noted by the reviewer, the accumulation of pine leaf litter and the byproducts of its decomposition would create and enhance layers of organic material and create conditions favorable to natural pine seedling establishment. This would alter the nature of the glades by eventually deepening soils within the glade, thereby allowing other plants, including woody plants that previously did not occur in the short, herbaceous plant community, to take over these areas that formerly had too shallow and poor soil to support shrubs and trees. This situation would also enhance invasion by other plants, including Macartney rose, that would benefit from additional soil. Not only would the glade vegetation undergo succession to shrubs and trees, but the glades would also be altered by the shading and would hold moisture in the soil. All of these conditions would impede the continued existence of the Texas golden gladecress by altering the competitive advantage that this plant has in the glade environment.

(9) *Comment:* One peer reviewer suggested evaluating a specific, potential Texas golden gladecress site based on the presence of the Texas golden gladecress's known associated species. The site is located on the SH 21 ROW, near the Sabine, Davy Crockett NF compartment 76, adjacent to a glauconite quarry.

Our Response: From information provided to us early in the proposed rule's preparation stage, we were aware

that flora and fauna surveys were done on USFS lands in Sabine County in association with the debris cleanup effort post-Hurricanes Rita and Ike. These surveys, in conjunction with results of botanical surveys conducted before this time, failed to document the Texas golden gladecress on any of these USFS lands, although we do not know if lands outside of the USFS were included in any of the surveys. However, strategies for continued evaluation of potential but unconfirmed new sites will be addressed during the recovery planning process.

(10) *Comment:* One peer reviewer suggested that mention be made of the possibility for illuminating the evolutionary history of these species by genetic studies and that this would be useful in determining management strategies.

Our Response: This is an issue that may be addressed during recovery planning.

(11) *Comment:* A peer reviewer provided additional literature to consider in our analysis on the hybridization of the Neches River rose-mallow. One was by Klips (1995) and the other by Mendoza (2004). These studies provide genetic insight of the relatedness between Neches River rose-mallow and two co-occurring species, *Hibiscus moscheutos* and *H. laevis.* Both researchers agree with the Service's opinion that the Neches River rose-mallow is a distinct species. These studies review the relatedness between the Neches River rose-mallow and other species; however, they do not investigate hybridization. Another peer reviewer noted the potential hybridization of the Neches River rose-mallow on compartment 20 in the Davy Crockett NF, in October 2012. Plants appeared to be *H. dasycalyx,* but the calyx was lacking the hairy surface typical of the species. The reviewer thought that the species was a potential cross with *H. laevis.*

Our Response: The Service has reviewed this new information and incorporated it into the threats section under ''Hybridization'' in this final rule. These studies pertain to the relatedness between the Neches River rose-mallow and other species. They do not investigate hybridization of these species. Although the genus *Hibiscus* readily hybridizes within the nursery trade, hybridization between Neches River rose-mallow and another *Hibiscus* under natural conditions has not been verified. Drought conditions can alter the plants morphological or physical characteristics including leaf size, structure, and overall plant height (Fair 2009, p. 1). Further investigation into the occurrence of hybridization and its impacts on the population are necessary. The University of Texas–Tyler is researching the hybridization issue for Neches River rose-mallow and its impacts on the population; however, the project is only in its infancy, and no results have been determined. We do not consider hybridization a threat to the Neches River rose-mallow at this time.

(12) *Comment:* One peer reviewer reported that in October 2012, she and a USFS botanist observed sedimentation along ROW work on both sides of SH 94. They anticipated that resurfacing and re-crowning work of the highway will likely increase runoff to this site. The reviewer noted that, during road improvement, TXDOT installs temporary culverts to assure water flow and exchange during construction. Another reviewer questioned whether county and municipal governments, who buy glauconite for road projects, are required to demonstrate that endangered species like white bladderpod are not being negatively impacted by their road-building activities. He further asked whether the counties are receiving State or Federal funds to assist with road building.

Our Response: The Service is aware of the bridge replacement along SH 94, but as of 2011, the construction and associated impacts of this project had not progressed into Neches River rose-mallow habitats (Adams 2011c, pers. comm.). Since the start of the SH 94 road expansion project, TXDOT has employed the use of temporary culverts and orange construction fencing around Neches River rose-mallow sites and has restricted workers from these fenced-off areas. Fenced-off areas encompassed far more area than that habitat known to be occupied by the Neches River rose-mallow (Adams 2013b, pers. comm.). In wetlands where sedimentation might continue despite the use of the above management activities, silt curtains (or silt fence) placed in conjunction with orange construction fencing have been installed (Adams 2013b, pers. comm.). Currently, all avoidance measures are voluntary.

However, on the effective date of this final rule (see **DATES**), the Neches River rose-mallow will become a federally threatened species under the Act. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out (that is, projects with a Federal nexus) are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat, if any is designated. If a Federal action may affect a listed species or its designated critical habitat, the responsible Federal agency must enter into consultation with the Service (see Available Conservation Measures in this final rule for more discussion of this process). If this project, or any other project, has a Federal nexus and the project may affect a federally listed species then the Federal action agency will need to consult with the Service. We are publishing a final rule on the designation of critical habitat the Texas golden gladecress and the Neches River rose-mallow under the Act elsewhere in today's **Federal Register**.

(13) *Comment:* One peer reviewer made several comments on invasive species and provided the Service with new information on the biology of Chinese tallow. The reviewer's recent observations in 2012, along with a USFS botanist, found Chinese tallow and *Melia azedarach* (Chinaberry) within compartment 16, Davy Crockett NF. Chinese tallow has invaded all known Neches River rose-mallow sites, yet is more prominent in SH 94 and compartment 16, Davy Crockett NF sites. The reviewer provided a literature citation, Gan *et al.* 2009. Additionally, the reviewer mentioned that coastal bermudagrass (*Cynodon dactylon*) is one of the most serious, nonnative, invasive species threats to the Neches River rose-mallow.

Our Response: As described in the proposed rule, we agree with the peer reviewer that nonnative species are a threat to the Neches River rose-mallow. We incorporated the additional information and biological data on tallow provided in Gan *et al.* 2009 into the Summary of Factors Affecting the Species section of this final rule. This additional information did not modify our listing determination.

At the time the proposed rule was published, we were only aware of one location at Boggy Slough in Houston County where coastal bermudagrass was observed. However, new information was provided to the Service during a public comment period. We are now aware of three additional sites where encroachment from coastal bermudagrass was observed. These sites included: The Texas Land Conservancy, where it is common; SH 204 ROW, where it is abundant (Poole 2013a, pers. comm.); and the original site at the SH 94—Boggy Slough, where it is locally common in the interior of the unit (Allen 2011a, pers. comm.). At the planted site on Boggy Slough, Neches River rose-mallow was observed as recently as August 2012. Although the coastal bermudagrass has the potential to spread and grow quickly, and has been known to form monocultures along

highway ROWs, the Neches River rose-mallow and coastal bermudagrass do not necessarily grow naturally in the same habitat. Coastal bermudagrass is not typically found within wetland areas. Further, the Neches River rose-mallow is a taller growing species, a feature that prevents itself from being shaded out by coastal bermudagrass. Based on the above information, the Service does not consider coastal bermudagrass a threat at this time. The TPWD concurs with the Service that coastal bermudagrass is not considered a threat at this time (Poole 2013a, pers. comm.).

The nonnative species Chinaberry has not been previously noted at any of the sites, including the site mentioned by the commenter, compartment 16 on the Davy Crockett NF. The Service investigated this comment further, and Chinaberry was not mentioned in the TXNDD database information. Based on this information the Service does not consider Chinaberry a threat at this time.

(14) *Comment:* A peer reviewer indicated that due to drought in 2011, the numbers of plants were a lot fewer than years previous in SH 94 ROW and compartment 55, Davy Crockett NF. On October 3, 2012, observers went to specific locations in these compartments where plants were known to occur, and none could be found. In 2013, rainfall has been about average to date, but the reviewer concluded that effects were evident from previous drought.

Our Response: We agree that drought has caused impacts to said populations and likely other populations. Drought conditions have reduced the number of plants and have stunted overall Neches River rose-mallow plant growth (TXNDD 2012a, p. 8). We do not have knowledge of how drought affects the Neches River rose-mallow on a larger scale or how it impacts flowering or seed production. However, it is possible that during drought conditions, floral characteristics that are normally easily recognizable could be reduced and make identification of Neches River rose-mallow more difficult (Poole 2012b, pers. comm.). Since the Neches River rose-mallow is a wetland species, we understand that drought conditions could continue to threaten the habitat as well as the reproductive capability since it is likely that seed dispersal is water-mediated. With the likelihood that seasonal or successive year-round drought conditions will likely continue, ancillary threats from trampling and herbivory may be exacerbated. Drought is discussed in the Summary of Factors Affecting the Species in this final rule.

(15) *Comment:* One peer reviewer noted that in spite of the fact that Sabine and San Augustine Counties have not seen major increases in human population, there has been improvement of services, such as communication lines, water lines, domestic gas lines, and power lines. These actions occur primarily in ROWs, and some occur in areas that are situated in potential Texas golden gladecress habitat.

Our Response: We acknowledge that the installation of new service lines (e.g., communication, water, domestic gas, and power lines) could potentially occur in more rural areas, and these activities typically occur in road ROWs, such as where the Texas golden gladecress occurs. There are two known Texas golden gladecress sites that extend into road ROWs. When this rule is effective (see **DATES**), section 7 consultation requirements and section 9 prohibitions under the Act will apply to the Texas golden gladecress and Neches River rose-mallow. See our response to Comment 12 and Available Conservation Measures for more discussion of this process.

(16) *Comment:* One peer reviewer pointed out an example of the flaws of teaming these two species together can be seen in the statement in the proposed rule that says, ''Prolonged or frequent droughts can exacerbate habitat degradation for both species.'' He indicated that a river-bottom dwelling species like the Neches River rose-mallow might be negatively impacted when drought allows other species to encroach. However, drought could positively impact Texas golden gladecress as it might exclude woody closure of glades. This reviewer noted his personal observation of the drought of 2011 dramatically pushing back the edges of glades in the Weches and in tiny saline prairies.

Our Response: We agree that the droughty conditions of hot, dry summers are a part of the reason why Texas golden gladecress can remain competitive on the glades. However, prolonged drought, especially when it occurs in successive years, has resulted in Texas golden gladecress not appearing above ground in some years, and therefore not flowering or producing seed in those years. We do not know how many years of poor seed production, or no seed production at all, will affect the survival of the population. Negative impacts of drought on the Neches River rose-mallow are discussed in our response to Comment 14 as well in the Summary of Factors Affecting the Species section of this final rule.

(17) *Comment:* A peer reviewer commented on the occurrence and use of nonnative and potentially invasive pasture grasses such as coastal bermudagrass, *Paspalum notatum* (bahiagrass), and *Lolium perenne* (perennial ryegrass), which are commonly used to re-vegetate many road ROWs. These grasses are common on most ROWs and aggressively grow in open, sunlit areas.

Our Response: The Service recognizes the occurrence and use of nonnative and potentially invasive pasture grasses along ROWs, and that ROWs typically become monoculture stands of these invasive species, thereby out-competing natives. The Service has verified that both coastal bermudagrass and bahiagrass are included in mixtures used to re-seed ROWs (Adams 2013c, pers. comm.). There are two Texas golden gladecress and three Neches River rose-mallow known populations growing along ROWs, which could be planted with nonnatives. We are not aware of any Texas golden gladecress sites where the Texas golden gladecress itself is being impacted by these grasses. Coastal bermudagrass has been observed on four Neches River rose-mallow sites (see our response to Comment 13 for additional details). We investigated these nonnative species as potential threats and incorporated this information into our analysis in the Summary of Factors Affecting the Species section for the Texas golden gladecress and Neches River rose-mallow in this final rule. There is the potential for such nonnative, invasive species to impact the Neches River rose-mallow, as well as the Texas golden gladecress, in the future if these grasses out-compete native plants for soil nutrients, space, and light. However, these invasive species are not currently a threat, and there are no data indicating that these species will be a threat in the near future.

(18) *Comment:* One peer reviewer provided new observations about damage to habitat due to feral hog activity. In October 2012, feral hogs had broken and flattened plants in compartment 16, Davy Crockett NF. Large groups of feral hogs were seen in two Neches River rose-mallow sites (compartment 55 and compartment 16, both in the Davy Crockett NF). Neches River rose-mallow habitat is only surficially dry and can be easily disturbed by hogs, as made evident in compartment 20, Davy Crockett NF.

Our Response: The Service has included this information in our analysis of feral hog impacts on the Neches River rose-mallow in the Summary of Factors Affecting the

Species section in this final rule. Based on this information, the Service recognizes that feral hogs impact the species and that feral hogs will likely continue to impact the species in the near future. However, at this time, the severity of impacts to the species is low. The level of impacts from feral hogs does not change the determination to list the species as threatened versus endangered.

(19) *Comment:* One peer reviewer commented on the impacts that beavers have had on one Neches River rose-mallow site: Compartment 16, Davy Crockett NF. In general, water levels fluctuated due to beaver activity. It was observed that larger trees along the water's edge were damaged by beavers, although it appears that water levels had receded to the same level prior to the beaver activity.

Our Response: The Service is aware of beaver presence at compartment 16 of the Davy Crockett NF. We acknowledge that beaver activity (i.e., dams) could have impacted this Neches River rose-mallow site. However, with seasonally fluctuating water levels and no estimates on plant abundance before and after beaver activity, it is unclear how or if beaver activity was a factor in the size of the Neches River rose-mallow population. We are uncertain if there was a correlation between the damage done to this site and the changes in water flow and the site hydrology, and whether this had a positive or negative impact on the species. No other sites have been impacted by beaver activity. We do not consider the effects of beaver damming to be a threat to the Neches River rose-mallow.

(20) *Comment:* One peer reviewer agreed with the use of Weches glauconite as road base material being a threat. He indicated his belief that it should be possible to locate Weches mines where conditions are not suitable for the glade community and reiterated that the Weches is a highly variable rock formation. This peer reviewer provided new information about other uses for Weches glauconite, including animal feed additives, that were not addressed in the proposed rule. This reviewer expressed his opinion that it is also possible that in a few decades the shortage of mineral phosphate rock might make some of the deposits viable for agriculture use. He referred to information from Dr. Ernest Ledger (geologist) regarding instances where rare earth elements are being mined in the Weches or Reklaw Formations.

Our Response: In analyzing threats to a species, the Service uses the best scientific and commercial data available to analyze the current threats and threats anticipated to occur in the near future. The Service has identified quarrying Weches glauconite as a current and future threat to the Texas golden gladecress. We know that several Texas golden gladecress populations have been lost in areas where glauconite quarries were developed (see the Summary of Factors Affecting the Species sections of the proposed rule and this final rule). We did not specifically identify animal feed additive as a use for the Weches glauconite in our proposed rule, but we have incorporated this information into the Summary of Factors Affecting the Species section of this final rule. The impact to the species from quarrying is the clearing and excavation of vegetation and soil during development. The specific uses of the Weches glauconite are not relevant to the impacts from quarrying. However, new uses or an increase in current uses of Weches glauconite may increase the demand of this resource and therefore increase the amount of quarrying activities (that is, ground disturbance). However, the Service does not have information that either of these are occurring.

Section 7 of the Act requires Federal action agencies to consult with the Service to ensure their action do not jeopardize the continued existence of the species. However, there are limited or no Federal nexuses for glauconite quarry projects. Entities implementing projects that could impact the Texas golden gladecress could play a significant role in the conservation of the species by voluntarily working with the Service, the State, or conservation groups to construct their projects in such a way as to avoid or minimize impacts to the species. Site selection of quarries outside of endemic plant communities containing Texas golden gladecress could be a measure to avoid or minimize impacts to the species.

Additional research of the habitat requirements of the Texas golden gladecress, particularly the surface soils and subsurface composition of the bedrock, may help in determining whether there are particular outcrops that should be protected for Texas golden gladecress versus ones that will never support the species and would therefore not be problematic if selected for a quarry. This is an issue that may be addressed during recovery planning.

(21) *Comment:* One peer reviewer suggested using genetic evidence to evaluate how past climate changes, particularly drought, as well as dispersal mechanisms and barriers to dispersal, may have affected the distribution and endemism of the Texas golden gladecress and the Neches River rose-mallow. He indicated his opinion that a better understanding of these factors would have bearing on future management considerations.

Our Response: It is possible that the past droughts have affected the distribution of Neches River rose-mallow and Texas golden gladecress in east Texas. For Neches River rose-mallow, geographic barriers may have arisen due to past drought events, potentially limiting genetic exchange between populations. Humans may have contributed to further endemism of the species by altering habitat, which functionally created barriers to dispersal and resulted in more isolation of populations. However, we can only postulate that these are the reasons for the endemism of the Neches River rose-mallow to certain river systems, and more specifically to surficially dry habitats as compared to other east Texas *Hibiscus* species. Additional research is needed to assess the validity of this hypothesis.

With regard to the Texas golden gladecress, the Weches outcrops generally occur in small, isolated or segmented strips (George 1987, p. 4; George and Nixon 1990, p. 118), making the habitat, in essence, small islands separated from one another by dissimilar habitat. The current patchiness and separation of the Texas golden gladecress population sites may be, at least in part, due to past droughts, but may also be a result of the habitat being fragmented by land conversions or lost to succession by woody species. Because we lack information on seed dispersal of Texas golden gladecress, we do not know how the species spread historically or how it came to be distributed where it is. Therefore, we do not know if the isolation of the populations is due to vicariance (populations on outcrops that are geographically separated by surrounding forest) or due to a lack of dispersal to new habitats or between population sites. Genetic evidence may help to clarify the relatedness or lack thereof between the remaining extant populations, but that may be undertaken as part of the recovery process.

(22) *Comment:* One peer reviewer commented that the presence of a currently listed endangered species, white bladderpod, confers some protection for other Weches glade plants at sites where it occurs.

Our Response: There are two Texas golden gladecress sites where white bladderpod is also found: Chapel Hill and Caney Creek Glade Site 1. Additionally, both species were known to co-occur at historical Caney Creek

Glade Site 6, but they were eliminated by construction of a quarry. The entirety of the Chapel Hill site is privately owned, with all Texas golden gladecress plants growing strictly on private land. This situation is also true for most of the Texas golden gladecress plants at the Caney Creek Glade Site 1, although a limited number of individuals extend into the adjacent TXDOT-managed ROW. Although there are not formal legal protections for listed plants on private land, if a project takes place on that privately owned property that is carried out, permitted, or funded by a Federal agency, a Federal nexus is established for that project, and that Federal action agency is responsible for section 7 consultation with the Service to avoid jeopardizing the species or adversely modifying any designated critical habitat. For the plants in the ROW at Caney Creek Glade Site 1, TXDOT will provide protections for the species per State regulations or through consultation with the Service.

Comments From States

Section 4(i) of the Act states, ''the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.'' Comments received from the State agencies and government officials regarding the proposal to list the Texas golden gladecress and Neches River rose-mallow are addressed below.

(23) *Comment:* These species have not been fully studied. There are significant concerns with the quality of data and analysis the Service used for its determination. The proposal is based largely on inconclusive reports and vast speculation about operations thought to affect habitats, existing regulatory mechanisms, conservation efforts, species populations and potential threats that fail to provide any sound scientific foundation on which to justify the listing of these species.

Our Response: It is often the case that biological information may be lacking for rare species; however, the Act requires the Service to make determinations based on the best scientific and commercial data available after conducting a review of the status of the species and after taking into account those efforts, if any, being made to protect such species. We are also required to make our listing determinations based on the five threat factors, singly or in combination, as set forth in section 4(a)(1) of the Act.

We sought comments from independent peer reviewers to ensure that our designation is based on scientifically sound data, assumptions, and analysis. Peer reviewers were generally in agreement with the conclusions from our threats analysis that habitat modification and destruction due to human activities, as well as woody encroachment into Weches glades, likely adversely affects the Texas golden gladecress. The reviewers enhanced our understanding of some threats by providing personal observations of habitat conditions at some population sites of both species. A peer reviewer brought the ongoing installation of utility service improvements with potential to impact Texas golden gladecress in portions of its range to our attention. Peer reviewers also agreed that drought negatively affects the Neches River rose-mallow, and they provided new, detailed information on the types of invasive plants that most seem to constitute a threat to the species, as well as the extent of the invasion by these plants into Neches River rose-mallow population sites. In addition, they furnished information about the presence of feral hogs at specific Neches River rose-mallow population locations, as well as observations of sedimentation from a highway construction project into one Neches River rose-mallow site. One peer reviewer indicated his agreement that the Neches River rose-mallow lacks protective mechanisms other than U.S. Army Corps of Engineers (USACE) permits. One peer reviewer expressed his opinion that we needed more pertinent geological information on the outcrops across a larger geographic area than just Nacogdoches, San Augustine, and Sabine Counties. He also suggested chemical analysis of the outcrops known to support the Texas golden gladecress so as to better understand their unique qualities in order to use that information to seek out additional sites to survey for heretofore undiscovered populations or to carry out recovery actions.

We also solicited information from the general public, nongovernmental conservation organizations, State and Federal agencies that are familiar with the species and their habitats in east Texas, academic institutions, and groups and individuals that might have information that would contribute to an update of our knowledge of the Texas golden gladecress and the Neches River rose-mallow, as well as the activities and natural processes that might be contributing to the decline of either species. We used information garnered from this solicitation in addition to information in the files of the Service, TPWD, TXNDD's elements of occurrence records for both species, published journal articles, newspaper and magazine articles, status reports contracted by the Service and TPWD, reports from site visits, and telephone and electronic mail conversations with knowledgeable individuals. We also used satellite and aerial imagery to ascertain changes in land cover and land use at historical population sites and to determine whether changes in land cover and land use at historical populations sites and to determine whether the presence of primary constituent elements for each species were still in place. Additionally, we used the results of population monitoring from site visits to look at abundance, and if enough information was available, to get an idea of trends in the populations. In October 2011, we also made field trips to known sites where we were granted access, to verify land uses and contribute to the veracity of our threats analysis. In March 2012, we helped to organize and carry out a workshop and field tour of Texas golden gladecress sites for purposes of assisting landowners and agricultural agencies to become familiar with the species and its habitat. We also revisited accessible Texas golden gladecress sites at that time. In August 2012, we attended a Neches River rose-mallow workshop and field tour conducted by TPWD and revisited Neches River rose-mallow population sites. We used the best scientific and commercial information available in assessing population status, recognizing the limitations of some of the information.

(24) *Comment:* There is no conclusive indication that glauconite quarrying, oil and gas activities, invasive species, or pine tree plantings threaten Texas golden gladecress.

Our Response: As stated in the proposed rule and this final rule, three historical populations of Texas golden gladecress were documented from sites where glauconite quarries are now located. The sole introduced Texas golden gladecress population, in Nacogdoches County, was extirpated by construction of a pipeline as recently as 2011. The Weches glades are documented to be overgrown with invasive, native and nonnative plants. The potential for negative effects from pine trees, planted in such close proximity to glades that shading and leaf litter accumulations adversely affect the glades, was pointed out to us by several respondents during the comment periods on the proposed rule, as well as one of our peer reviewers based on their personal observations (see the Summary of Factors Affecting the Species section of this final rule).

(25) *Comment:* There is no conclusive indication that the invasion by other species, development and construction projects, herbicide use, or herbivory pose a risk of loss or degradation to the Neches River rose-mallow.

Our Response: A thorough analysis of the impacts of nonnative and native species encroachment, TXDOT roadway construction and maintenance projects, herbicide use, and herbivory were discussed in the proposed rule and in this final rule. All populations of the Neches River rose-mallow have been encroached upon by Chinese tallow. This invasive species is fast-growing and, once established in a habitat, is highly destructive, choking out native species. Development and construction projects will likely continue to be a threat to the species. Herbicides are a threat that could impact 7 of 11 (64 percent) Neches River rose-mallow populations. We do not consider herbivory to be a threat to the Neches River rose-mallow at this time. See the Summary of Factors Affecting the Species section of this final rule for our complete evaluation.

(26) *Comment:* The best available information stated that the Texas golden gladecress and the Neches River rose-mallow are resilient species.

Our Response: Based on our review of the best available scientific and commercial data, we concluded that the Texas golden gladecress exhibits low to moderate resiliency. Although the species has persisted at several sites in the face of bulldozing, drought, and invasion by woody species, likely due to its persistent seed bank, and has also stayed in existence in small sites with small numbers of individuals, perhaps due to self-fertilization, it has shown no resiliency to impacts such as excavations (e.g., quarrying) and pipelines. For more information, see the Determination section of this rule. In the case for the Neches River rose-mallow, the best available scientific information indicates that, while reductions in the species' range have not occurred, there have been significant impacts from habitat modification and loss that have caused reductions in most, if not all, of the known Neches River rose-mallow populations. The Neches River rose-mallow is adapted to highly variable rates of water flow, including seasonal high and low flows, and occasional floods and droughts. However, as the habitat is so water-dependent, threats that could adversely modify its habitat, including invasion from nonnative and native woody vegetation, hydrological changes, herbicide, trampling, and drought, can have huge impacts. The Neches River rose-mallow likely requires high precipitation and flowing water or flood events to disperse seed (Warnock 1995, p. 20; Scott 1997, p. 8; Reeves 2008, p. 3), and although the Neches River rose-mallow is adapted to persisting during dry portions of the year, a complete lack of water can diminish seed production, range expansion, and genetic exchange.

(27) *Comment:* The Texas golden gladecress is already adequately protected by co-existing with the federally listed white bladderpod and collaborations between the Service and several partners.

Our Response: White bladderpod is found at two of the remaining known Texs golden gladecress population sites (see our response to Comment 22). Both sites are privately owned with the exception of the Texas golden gladecress plants that extend onto the Sunrise Road ROW at Caney Creek Glade Site 1; therefore, absent a Federal nexus, no legal protections are afforded to either species under the Act. The Chapel Hill landowner does mow or bush-hog at least once per year to try to keep woody plants from overrunning this small tract, but this action is strictly voluntary on his part and not assured into the future.

(28) *Comment:* The mechanisms and plans provided by the Davy Crockett NF, the TXDOT, groundwater management areas and conservation districts, federally protected wetlands, and a number of private initiatives and agreements all serve to adequately protect the Neches River rose-mallow species.

Our Response: We agree that the Neches River rose-mallow does benefit from some protections on USFS and TXDOT lands. As of the effective date of this rule (see **DATES**), the Neches River rose-mallow is a federally listed threatened species. Further, we are publishing a final rule on designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow under the Act elsewhere in today's **Federal Register**. Therefore, if a Federal nexus exists for a project, projects within the species' range or within designated critical habitat units must avoid jeopardizing the species or adversely modifying its designated critical habitat.

(29) *Comment:* Local elected officials were not notified of the proposed designation during the public comment period. It is crucial that the Service contacts potentially impacted private landowners, local elected officials and leaders, and industry in these counties.

Our Response: We made substantial efforts to notify the public and interested parties, as described here. We announced the opening of the public comment period on the proposed rule in Nacogdoches, Houston, and Harrison Counties via newspaper public notices on September 19 and 20, 2012. Within 14 days post-publication of the proposed rule in the **Federal Register,** the Service mailed 164 letters to recipients that included both U.S. senators; the U.S. representative from east Texas; two State senators and three State representatives for the districts in question; and the county judges and all four commissioners from each of the following counties: Sabine, San Augustine, Nacogdoches, Houston, Cherokee, and Trinity. We also notified, via letter, State officials including the Texas Governor, State Comptroller, Texas General Land Office (TGLO) Commissioner, and Executive Directors of Texas Parks and Wildlife Department (TPWD) and Texas Department of Transportation (TXDOT). Letters were also sent to staff of interested or affected agencies (TPWD, Texas Council of Environmental Quality, TXDOT, Texas Railroad Commission, Texas General Land Office, Texas Forestry Service, Texas Department of Agriculture, U.S. Department of Agriculture's Natural Resources Conservation Service, USACE), universities, conservation organizations and other nongovernmental organizations, and representatives of the following industries: Glauconite quarries, oil and gas exploration and production, timber production, and forestry services. In addition, we sent letters to some landowners, including private individuals, USFS, and TXDOT.

More specifically with regard to landowners, in September 2011, approximately 1 year prior to publication of the proposed rule, we sent letters to 107 entities, including representatives of many of the agencies or organizations listed above, informing the recipients of our need to gather and analyze the best available information for our use in developing a proposed rule to list and designate critical habitat for both species. We then added any landowner contacts that were given to us to our notification list. For some sites, landownership was clarified in file records or through communications with representatives of other organizations. Furthermore, for the Texas golden gladecress, we partnered with TPWD in March 2012, to host a Weches Glades workshop and field tour in San Augustine, to which we invited four private landowners (two with Texas golden gladecress and two with white bladderpod populations on their property). As preparation for the field

tour, permission to access sites was obtained from these four landowners. The purpose of the workshop and field tour was to acquaint landowners, and agency representatives that work with private landowners, with the glade and outcrop habitats, rare plants, and the listing process and implications, particularly as it applies to plants. In addition to these landowners, 24 other individuals were invited to the workshop, including two San Augustine County commissioners; the Mayor of San Augustine; the Chairman of the local Soil and Water Conservation District; and individuals from the Natural Resources Conservation Service, Texas Forest Service, a private forestry services company, and a mining company. Of the 28 invitees, 17 attended the workshop and field tour.

As additional outreach to Neches River rose-mallow landowners, land managers, and agencies that work with them, TPWD organized a workshop and 2-day field trip in August 2012. The workshop also furnished an opportunity to explain the listing process and its applicability for plants. A pre-field trip workshop allowed information to be presented to 45 attendees that included the Texas Land Conservancy (owner of the Neches River rose-mallow Lovelady site) and TXDOT (owner of the ROW sites along SHs 204 and 94).

On April 16, 2013, the day of **Federal Register** publication of the document making available the draft economic analysis and reopening the comment period for the proposal to list the plants and designate critical habitat, we emailed letters to 157 people including representatives of agriculture, timber, oil and gas, and mining industries; local elected officials from the counties in question; agency staff that work with landowners; and those landowners for whom we had email addresses. Within 2 days of publication in the **Federal Register**, we also sent 208 letters by mail to State and local elected officials (including all county judges and commissioners); industry representatives; scholars; conservation organizations; State, Federal, and local agencies; and all individual landowners who had been identified through the past 2 years since our initial information solicitation in September 2011.

(30) *Comment:* Multiple State entities expressed concerns that these listings will hamper economic development. They indicated their belief that listing could impact agriculture and timber planting operations; oil and gas operations; and highway construction and maintenance projects in Nacogdoches, Sabine, and San Augustine Counties. They were concerned that projects with a Federal component could be delayed or cancelled in the listed counties. They also indicated concern that listing could impact ground water management, reservoir construction, road and bridge projects, and agriculture operations in Cherokee, Harrison, Houston, Nacogdoches, and Trinity Counties.

Our Response: Under section 4(b)(1)(A) of the Act, we must base a listing decision solely on the best scientific and commercial data available. The legislative history of this provision clearly states the intent of Congress to ensure that listing decisions are ''. . . based solely on biological criteria and to prevent non-biological criteria from affecting such decisions . . . ''. Therefore, we did not consider the economic impacts of listing these species. See our response to Comment 12.

With respect to effects of listing on highway construction and maintenance, TXDOT has formally consulted with the Service only once for the white bladderpod in the 26 years that the plant has been listed. This formal consultation took place in 2009, for a highway safety improvement project on approximately 10 miles (16.1 km) of SH 21. The consultation resulted in slight modifications to TXDOT's original plan for a 4-ft (1.2-m) widening of the shoulder, instead widening it to 3 ft (0.9 m) for a short distance around a white bladderpod population. The Service and TXDOT agreed to creation of a ''No Work Area'' around the white bladderpod during construction phases to protect the plant from foot and vehicle traffic and to prevent any staging of equipment or materials. Provisions were made for TXDOT to continue maintenance (mowing) within the No Work Area post-project during the plant's dormant season (July 1 to August 31). The TXDOT also agreed to enhance habitat by hydroaxing invading woody vegetation at three white bladderpod sites on private land as compensation for loss of one or more plants that could not be avoided. These are the types of recommendations that are anticipated in the few situations where Texas golden gladecress occurs in State-maintained ROWs. The TXDOT has indicated that they do not have major highway construction projects planned anywhere near the critical habitat within the next 20 years, so we do not anticipate delays of highway construction projects.

(31) *Comment:* Although Neches River rose-mallow is considered extirpated in the SH 230 ROW, in 2012, Laura Baker, a graduate student at Stephen F. Austin State University, reported seeing Neches River rose-mallows within the ROW somewhere near the former site (Baker 2012, pers. comm., in Melinchuk 2012, p. 3). This observation needs to be verified.

Our Response: We visited the site along SH 230 in Houston County in 2011, and did not find any Neches River rose-mallow plants. This site was considered extirpated due to herbicide overspray along the ROW. However, based on this comment, the population could still be present. Another commenter provided information regarding reintroduced populations near the cities of Douglass and Chireno, and at the Pineywoods Native Plant Center, all in Nacogdoches County. These populations need to be verified as Neches River rose-mallow and not a hybrid variety.

(32) *Comment:* The Neches River rose-mallow and the other two co-occurring *Hibiscus* species are wetland rather than aquatic plants. They do not grow in permanently standing water. They grow near permanent or ephemeral water bodies, and the sites are occasionally flooded. For most of their life cycle they grow on saturated soils that can become surficially dry. The proposed rule (77 FR 55973) states that the Neches River rose-mallow prefers deeper water; it would be more correct to say that the plants prefer areas near deeper water.

Our Response: In our proposed rule at 77 FR 55973, we state, ''Geographically, these three species [the halberdleaf, crimsoneyed, and Neches River rose-mallows] can be found within similar habitats, but the halberdleaf and the crimsoneyed rose-mallows prefer deeper water and are found along edges of major rivers and streams (Blanchard 1976, pp. 10–14; Poole 2011b, pers. comm.), compared with the [Neches River] rose-mallow, which is found in side channels and floodplains of major river drainages.''

Neches River rose-mallow is an endemic east Texas wetland species, occupying relatively open habitat. Soils are of the Inceptisol or Entisol orders (Diggs *et al.*2006, pp. 46, 79) and, although generally water-saturated, can often be surficially dry. Geographically, the Neches River rose-mallow and the two other co-occurring *Hibiscus* species can be found within similar habitats; however, the Neches River rose-mallow prefers areas near deeper water, whereas the halberdleaf and crimsoneyed rose-mallows are found along edges of major rivers and streams (Blanchard 1976, pp. 10–14; Poole 2011b, pers. comm.).

(33) *Comment:* The general habitat for the Neches River rose-mallow is more similar to seasonally flooded river floodplains (Diggs *et al.* 2006, pp. 103–

104) rather than the short-leaf or loblolly pine-hardwood forest, longleaf pine, or loblolly pine forest (77 FR 55973).

Our Response: As stated in the proposed rule, Gould (1975, p. 10) and Correll and Johnston (1979, p. 1030) described the generic vegetation community of the Neches River rose-mallow as the Pineywoods of east Texas. Diggs *et al.* (2006, pp. 2–3) also describes the generic geographic area as the Pineywoods; however, this was not mentioned in the proposed rule. More specifically, Neches River rose-mallow habitat within the Pineywoods is more accurately classified by Diggs *et al.* (2006, pp. 103–104) as ''seasonally flooded river floodplains.'' Natural bottomlands occupy the flat, broad portions of the floodplains of major rivers and are seasonally inundated with loamy to clayey seasonally flood and host flood-tolerant species of oak, sweetgum, elm, swamp tupelo, and red maple (Diggs *et al.* 2006, p. 103). Stands of shortleaf, longleaf, and loblolly pine are not occupied by the Neches River rose-mallow.

(34) *Comment:* The proposed rule states that flowing water is required for seed dispersal downstream (77 FR 55974, 55988). However, research suggests this process has not entirely been investigated. Warnock (1995) notes that seed dispersal of Neches River rose-mallow is probably by water, Scott (1997, p. 5) stated that seed dispersal appears to be entirely water dependent, and Reeves (2008) discusses the dispersal of *Hibiscus moscheutos* (including *lasiocarpos*). The commenter states that although water-mediated seed dispersal of the Neches River rose-mallow is highly likely, it is not known that flowing water is required for seed dispersal downstream.

Our Response: We agree that based on the best scientific and commercial data available, Neches River rose-mallow seeds are likely to be dispersed by flowing water. This change is reflected in the ''Habitat'' section for the Neches River rose-mallow of this final rule, yet this comment did not change our listing determination for the Neches River rose-mallow.

(35) *Comment:* Of the four introduced populations of Neches River rose-mallow, all but the experimental site (which has been manipulated) have experienced population declines (50 percent in Davy Crockett NF compartment 20, 90 percent in Davy Crockett NF compartment 16, and 95 percent in Davy Crockett NF compartment 11). Rapidly declining populations such as those in Davy Crockett NF compartments 16 and 11 do not appear viable.

Our Response: The Act requires us to determine if the Texas golden gladecress and Neches River rose-mallow warrant listing based on our assessment of the five listing factors described in the Act using the best scientific and commercial data available at the time we conduct a review of the species. As part of our assessment, we evaluate whether a threat(s) is causing declines in numbers of individual plants in all populations or in specific population sites. However, a population's viability in and of itself, if not influenced by specific threats, is not a factor considered in our evaluation.

(36) *Comment:* One commenter noted that several of the population estimates throughout the proposed rule were not accurate or consistent. Information pertaining to sites 2, 3, 6, 7, and 8 in Table 4 of the proposed rule needs to be changed. Site 2 states 78 plants were counted in 2003, but this should read stems. Site 3 states that 200–250 Neches River rose-mallow plants were introduced on compartment 20 of the Davy Crockett NF in 2000; however, the critical habitat section (Critical Habitat Unit 7) states that 350–400 plants were introduced in 2000. The actual number introduced is important in evaluating the success of the reintroduction. Site 8 states several hundred plants were counted in 2001, but this should read several hundred flowers. Site 7, the SH 204 ROW site, has had as many as 75 individuals, not a maximum number of seven plants.

Our Response: The language in Table 4 pertaining to site 2 (compartment 16 of the Davy Crockett NF) has been updated. Site 2 (compartment 16) and Site 4 (compartment 20) were planted in 2000 (Nemec 2000, p. 3), totaling 700 plants in both units, with about 450 plants in Site 2 and about 200–250 plants in Site 4. Site 6 (SH 204) has been observed with about 75 plants in 1997, its maximum count to date, and this change is reflected in this final rule.

(37) *Comment:* One commenter noted the steep decline in the reintroduced site in compartment 16 of the Davy Crockett NF where the population has decreased by 90 percent (from 450 to 43 plants). Whether the loss of the beaver dam resulted in this drastic decrease needs further study.

Our Response: See our response to Comment 19.

(38) *Comment:* In the proposed rule under the heading ''Trampling by Feral Hogs and Cattle'' (77 FR 55987), it states that because Neches River rose-mallow habitat is permanently or temporarily flooded, feral hogs have limited access to the plants. Neches River rose-mallows do not occur in permanently standing water, although they may grow adjacent to such sites. Their habitat is only flooded infrequently. For most of the year, it is surficially dry and easily disturbed by feral hogs. The commenter also noted feral hog damage of Neches River rose-mallow (breaking and flattening) at the introduction site in compartment 20 on the Davy Crockett NF (TXNDD 2012a).

Our Response: National Wetland Inventory (NWI) maps were used to verify habitat at each Neches River rose-mallow site. Compartment 20 was described on the NWI map as permanently or temporarily flooded habitat. The Service recognizes that Neches River rose-mallow prefers areas located near deeper water, generally with temporary not permanent standing water. The long-term impact on the Neches River rose-mallow from feral hog damage is unknown. Feral hog presence has been limited to five Neches River rose-mallow sites with minimal damage to habitat. The Service considers feral hogs a present threat and one that will likely continue into the near future. However, at this time, the severity of impacts to the species is low. This threat does not change the determination to list the species as threatened versus endangered. See also our response to Comment 18.

(39) *Comment:* The listing proposal states that no genetic studies have been conducted on the Neches River rose-mallow; however, there have been two such studies by Klips in 1995 and Mendoza in 2004. Neither study looked at genetic drift, inbreeding, or the possible threat from hybridization. It seems premature to conclude that small population size and hybridization are not potential threats.

Our Response: The Service has reviewed Klips (1995, entire) and Mendoza (2004, entire) and incorporated this information into our analysis in the Summary of Factors Affecting the Species section of this final rule. While these studies pertain to genetic analysis, they do not look at genetic drift, inbreeding, or the possible threat from hybridization, as the commenter acknowledges. Based on the best scientific and commercial data available, we do not consider hybridization or small population size a threat to the species at this time. See our response to Comment 11 for additional information regarding this comment.

(40) *Comment:* Listing of the two plants will have adverse impacts on the State transportation system other than in instances where they occur in or immediately adjacent to State-owned

ROW. Listing will hamper economic development and delay projects that require section 7 consultations.

Our Response: See our response to Comment 30 above.

(41) *Comment:* There are existing mechanisms that adequately protect both species.

Our response: See our response to Comments 22, 27, and 28.

Federal Agency Comments

(42) *Comment:* The Natural Resources Conservation Service indicated their willingness to assist landowners and land managers in identifying those elements that may have a negative or positive impact on the species.

Our Response: We appreciate the Natural Resources Conservation Services' (NCRS') willingness to help landowners with actions to conserve these species. We foresee that NRCS' assistance to landowners and to the Service will be invaluable in delivering conservation programs like the Service's Partners for Fish and Wildlife Program that can help willing landowners plan and implement projects to restore habitat for both of these plant species.

Public Comments

(43) *Comment:* One commenter provided information regarding reintroduced populations near the cities of Douglass and Chireno, and at the Pineywoods Native Plant Center, all in Nacogdoches County. These populations have not been verified by the Service or a species expert. These populations need to be verified as Neches River rose-mallow and not a hybrid variety.

Our Response: These populations have not been verified by the Service or species experts. Until such verification, the Service cannot use this information in our analysis.

(44) *Comment:* Several commenters expressed their beliefs that these species have not been fully studied. They indicated that there are significant concerns with the quality of data and analysis the Service used for its determination. They believe that the proposal is based largely on inconclusive reports and vast speculation about operations thought to affect habitats, existing regulatory mechanisms, conservation efforts, species populations, and potential threats that fail to provide any sound scientific foundation on which to justify the listing of these species. Other commenters assert that the Service does not have the scientific justification to list these species.

Our Response: See our response to Comment 23.

(45) *Comment:* As outlined in the 2003 St. Augustine Glades Conservation Area Plan, TNC, along with other resource professionals, identified the conservation concerns and challenges for sustaining populations of the Texas golden gladecress.

Our Response: We were aware of this document and considered this in our preparation of this determination.

(46) *Comment:* A commenter recommended that the benefits provided by conservation efforts currently in place in an area be fully considered.

Our Response: Section 4(b)(1)(A) of the Act requires us to take into account those efforts being made by a State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species. We consider relevant Federal, State, and tribal laws and regulations when developing our analysis. Regulatory mechanisms may preclude the need for listing if we determine such mechanisms adequately address the threats to the species such that listing is no longer warranted. However, existing regulatory mechanisms are inadequate to protect these species, and the ongoing conservation efforts are not sufficient to remove the threats to these species. Please see ''Other Conservation Efforts'' under ''*A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range''* for the Texas golden gladecress and Neches River rose-mallow in this final rule.

(47) *Comment:* Multiple commenters believe that interested parties should be given sufficient opportunity to review and comment on any proposal, including review of scientific data from an independent specialist's economic analysis of the current proposal, before the Service makes a final decision in this rulemaking. Similarly, any data provided to Service during future public hearings should also be made available to the public for review and comment.

Our Response: This information was provided to the public for review and comment. Please see our response to comment 29 above for a full description.

(48) *Comment:* One commenter recommended that any proposal to list a species should include easily accessible and transparent information about cited literature. Another commenter noted that Executive Order 13463 directs agencies to provide timely online access to the rulemaking docket on *http://www.regulations.gov,* including relevant scientific and technical findings, in a format that can be easily searched and downloaded (E.O. 13463, sec. 2(b)). The proposed rule failed to provide a meaningful opportunity to understand and comment on the Service's proposal.

Our Response: Executive Order 13463, signed by the President on April 18, 2008, amends Executive Orders 13389 (Creation of the Gulf Coast Recovery and Rebuilding Council) and 13390 (Establishment of a Coordinator of Federal Support for the Recovery and Rebuilding of the Gulf Coast Region). None of these three Executive Orders directs Federal agencies to provide timely online access to the rulemaking docket. We believe the commenter is referring to Executive Order 13563, ''Improving Regulation and Regulatory Review,'' and we believe that we have met the direction of that Executive Order. For our proposed rule to list the species and designate critical habitat, we provided the literature cited bibliography on *http://www.regulations.gov* when we published the proposed rule. The proposed rule also stated that additional tools and supporting information that we developed for that proposal were available at the Service's field office in Corpus Christi by appointment or that arrangements could be made to get that information by calling the field office. For this final determination, the literature cited bibliography and all tools and supporting information are available at:

- *http://www.regulations.gov* under Docket No. FWS–R2–ES–2012–0064,
- *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,*
- *http://www.fws.gov/southwest/es/ClearLakeTexas,* and
- Texas Coastal Ecological Services Field Office in Corpus Christi (see **ADDRESSES**).

(49) *Comment:* The Service's failure to examine relevant evidence, explain its assumptions, consider contrary evidence in the studies on which it relies, identify uncertainties, share the studies it relied upon, and utilize basic scientific principles in its predictive analysis is arbitrary, capricious, and not in accordance with the law. There is no basis in the record to support listing the plants under the Act.

Our Response: As we are unable to identify from this comment the specific assumptions or contradictory evidence that the commenter is referring to, we cannot adequately provide a response to that part of this comment. We assessed the status of both species using the best scientific and commercial data available. We obtained this information by reviewing the candidate assessments that had been done for each species since they were first determined to be warranted for listing (in 1975 for the

Neches River rose-mallow, and in 1997 for the Texas golden gladecress), using all information in our files, soliciting new information prior to publication of the proposed rule, as well as during two comment periods, from a wide variety of knowledgeable entities and individuals, and using additional sources of information such as peer-reviewed journals and other publications. We incorporated all substantial information we received into this final rule, including any new information regarding the species' status, habitat conditions, and threats. We believe that we did identify and point out uncertainties and data gaps. We had to rely on the best scientific and commercial data available to us, as opposed to collecting new data to fill gaps. We believe that we have made a sound case for why the Texas golden gladecress warrants listing as endangered and the Neches River rose-mallow warrants listing as threatened under the Act. For further information, see our response to Comment 23.

(50) *Comment:* The threat to SH 204 ROW by ''water management strategies'' is speculative. There are no scientific data that demonstrate the level of hydrological change that would impact the Neches River rose-mallow; the Service is speculating this threat. Also, the proposed rule's discussion of the plant numbers for the Neches River rose-mallow and the impacts of the proposed Lake Columbia project on this species have not been subjected to rigorous scientific analysis or discussion. The Service does not report on information from two of its published reports; specifically plant count information was missing from 2007. Also, in these reports, plants were determined to be *Hibiscus* hybrids; however, this was not mentioned. There is no explanation of why the Service did not present this readily available data.

Our Response: Some degree of hydrological change has been seen at most of the Neches River rose-mallow sites; however, information on some of the private land sites is lacking. Many wetland species, including the Neches River rose-mallow, are adapted to highly variable rates of water flow, including seasonal high and low flows, and occasional floods and droughts. For example, the Neches River rose-mallow likely requires high precipitation and flowing water or flood events to disperse seed (Warnock 1995, p. 20; Scott 1997, p. 8; Reeves 2008, p. 3), and although the Neches River rose-mallow is adapted to persisting in dry conditions during portions of the year, a complete lack of water can diminish seed production, range expansion, and genetic exchange. As Niches River rose-mallow habitat is so water-dependent, hydrological changes can have huge impacts.

In regards to the SH 204 ROW site, the best scientific and commercial data available suggest that the construction of the Lake Columbia reservoir project will divert water downstream, thereby likely dewatering the site. The agencies involved with the project are still working on solidifying the project details, and, therefore, we do not know how much water will remain at this site or if future water management practices or decisions will allow for seasonal flooding of water to this site. Please reference the ''Hydrological Changes'' section in this rule for more information on this project and hydrological impacts to this and other sites.

Summary of Changes From Proposed Rule

There are not any substantial changes from the proposed rule. We did receive new information regarding the presence of feral hogs at Neches River rose-mallow sites. Based on this new information, we determined that feral hogs are a current and continuing threat to the Neches River rose-mallow, but the severity of the threat is low. We also received new information about ongoing service line improvements, including communication, domestic gas, water, sewer, and electric lines, that were occurring within the Texas golden gladecress's range, sometimes in highway ROWs. We determined that, because these improvements may involve excavations of habitat and plants, they could constitute additional threats to the Texas golden gladecress. These newly identified threats do not alter our listing determinations.

Summary of Factors Affecting the Species

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR part 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, we may list a species based on any of the following five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence. Listing actions may be warranted based on any of the above threat factors, singly or in combination. Each of these factors is discussed below.

Texas Golden Gladecress

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Habitat loss and degradation have been the primary cause of decline in Texas golden gladecress during the last two decades. Permanent removal or destruction of habitat by quarrying and pipeline installation projects has eradicated several populations. Other habitat alterations that are occurring across the species' range, with potential to destroy or negatively alter Texas golden gladecress's habitat, include construction of well pads, buildings, roads, and poultry production facilities, and service line improvements. A historic and ongoing major threat to Texas golden gladecress's habitat is the invasion by nonnative and native shrubs, trees, and vines, and other weedy species into the formerly open-sun, herbaceous, glade vegetation communities. Planting of pine plantations can potentially have negative impacts on the Texas golden gladecress if the spacing of planted trees puts them in close proximity to occupied outcrops, resulting in shading and pine leaf litter accumulations in the glade habitat. Grazing has been implicated as a habitat threat because it is often associated with the encroachment of undesirable vegetation into the outcrop habitat, and may lead to trampling of plants. Agricultural herbicide use has some potential to damage emerging Texas golden gladecress seedlings. Severe and extended periods of drought, anticipated to increase with projected changes in the climate, may negatively affect a given year's reproductive effort by Texas golden gladecress. These factors will be discussed in more detail below.

Glauconite Quarrying (Mining)

Glauconite, often called ''blue rock'' or ''green rock,'' is used in San Augustine and Sabine Counties for road construction and maintenance by county road departments, USFS, and Louisiana Parishes (McGee 2011, pers. comm.). Glauconite has also been used by the oil and natural gas industry for roads and well pads, and demand by the oil and gas industry is high (McGee 2011, pers. comm.). Glauconite is also used as a component of fertilizer and as an animal feed additive (Godwin 2012, pers. comm., p. 4). A number of commercial glauconite quarries or mines were in production by 1997, and

subsequent interest in its use grew because traditional pavement base materials historically used in this region (iron ore and limestone) were becoming harder to obtain and more expensive (Button and Little 1997, p. 14). A representative of one mining company with four quarries in the San Augustine and Sabine County area expressed an opinion that their mines were sustainable for 15 to 20 years at the current level of demand (McGee 2011, pers. comm.). The best scientific and commercial information available does not allow us to make predictions about future demand for glauconite, and we are unable to project the level of future quarry development throughout the Texas golden gladecress's range. Selection of quarry sites can be based on different site qualities and the variation in the mineral composition of the Weches Formation across its geographic range. Selection of locations for glauconite quarries may target areas ''where the glauconite can be seen on the surface'' (outcrops), although quarries have also been dug on sites where the glauconite was not visible at the surface (McGee 2011, pers. comm.).

TNC (2003, p. 9) noted that glauconite quarrying (mining) in glades destroys habitat and is a significant threat to the Texas golden gladecress. The majority of known habitat was excavated at three of the eight historical populations (Caney Creek Glade Sites 2, 6, and 8) between 1996 and 2011, resulting in open pits at the former habitat sites. The excavations removed all surface features required by the gladecress, as well as killing individual plants. The Service has been denied access to these sites; thus we cannot determine if any habitat or plants remain on the periphery of the excavated quarries. The last recorded survey of plants at Caney Creek Glade Site 2 was on March 18, 1988, when the Texas golden gladecress plants were described as growing on the sloping Weches outcrop that was brush-hogged and burned in 1988. Using available high-altitude photography taken between 1995 and 2009, supplemented with aerial photography from August 2010, it appears that the glade was still intact as of 1995–1996, but that a much larger area than the original population site was excavated by 2005. As of 2010, the entire population site and surrounding area looks to be two large, side-by-side pits or ponds. Based on the total loss of habitat (surface and subsurface) due to the excavation, over a large portion of the former population site, we assume that the population was extirpated here.

The last information on plant numbers and conditions at the Caney Creek Glade Sites 6 and 8 was collected on March 19 and April 24, 1987. At that time, Caney Creek Glade Site 6 was recognized as the largest known viable population of Texas golden gladecress. At this site, the Texas golden gladecress grew in a former pasture with thousands of fruiting plants in association with other native glade plants, including white bladderpod, in shallow bedrock pockets. The Caney Creek Glade Site 8 consisted of a very small population on a degraded Weches outcrop, with scattered plants in fruit. Both elements of occurrence appeared to be eliminated by a large, open-pit quarry in which digging started after 1996, with the entire area being one large pit by 2009.

The outcrops may actually attract glauconite quarrying interests because the presence of an outcrop indicates that glauconite is close to the surface. Glauconite mining can occur throughout the range of Texas golden gladecress and has the potential to eradicate populations at sites where quarries are dug. There is no requirement for permits to develop a quarry, typically there is no Federal nexus, and locations of future quarries are unknown. Based on our review of the scientific information, we conclude that excavation of pits for removal of glauconite, and associated glauconite-quarrying activities, pose a threat to the Texas golden gladecress across the species' range.

Natural Gas and Oil Exploration and Production

A principal threat to the habitat of Texas golden gladecress is the removal or destruction of habitat (outcrops and immediate surrounding land) by pipeline construction or from construction of buildings, well pads, or roads to access drilling sites directly over habitat. Natural gas pipeline installation requires trenching and clearing that can destroy all gladecress habitat and plants within the pipeline ROW. In addition to the destruction of habitat, excavation could conceivably alter the hydrology of Texas golden gladecress sites if the lowered elevation of the excavation, or conversely, the increased ground elevation of a well pad or other structure, diminishes the amount of water that can move downslope over ground or through seeps. Adversely affecting the amount and timing of water delivery could render outcrop ledges uninhabitable for the species by interfering with the seeping or pooling action of water on which the species depends.

The loss of habitat and plants in the footprint of well pads and roads built for natural gas or oil exploration and production is a continuing threat because there is high potential to affect remaining glade habitat throughout the species' range. Numerous wells can be seen from SH 21 between the cities of Nacogdoches and San Augustine, with at least 30 wells visible along a 20-mile (32-km) stretch of this road (Loos 2011, pers. comm.; Rodewald 2011, pers. comm.). The materials brought in to construct well pads and roads can directly cover habitat and plants, causing partial or total loss of populations. Excavations, as well as construction activities, that occur upslope of Texas golden gladecress populations may act to impede movement of water downslope, thereby interfering with seeping and pooling of water needed by Texas golden gladecress. Concern about the extent of this threat is elevated due to our lack of information about potential Texas golden gladecress populations across the Weches glades where surveys for the species have not been undertaken, but where natural gas exploration and production is rapidly proceeding.

The entire known distribution of Texas golden gladecress is underlain by the Haynesville Shale formation (also known as the Haynesville-Bossier), recently recognized as a major natural gas source for the United States. The Haynesville Shale, located at a depth exceeding 11,000 ft (3,353 m), straddles the Texas-Louisiana border, and almost 70 percent of its production is from wells located in Texas (Brathwaite 2009, p. 16). The Haynesville shale covers an area of approximately 9,000 mi^2 (23,310 km^2). A June 2010 map shows the Haynesville Shale underlying the northwestern quarter of Sabine County, the entire northern half of San Augustine County, and the southeastern third of Nacogdoches County (Haynesville Shale Map 2010). Estimates of the natural gas contained in this formation's reserves indicate that it could sustain anticipated energy needs for well beyond the next several decades (Hall 2009, pp. 3–7; Brathwaite 2009, p. 16). Technological improvements in exploration (3-dimensional seismic surveys), drilling (horizontal wells), and well completion and stimulation (hydrologic fracturing) have enhanced the productive capability of natural gas shales throughout the United States, including the Haynesville Shale.

Natural gas exploration and production has been rapidly expanding within the Haynesville Shale, from the first significant production in 2005, to major development of the formation in 2009 (Brathwaite 2009, p. 16). Drilling activity over the entire Haynesville Shale peaked around 2009 or 2010, when approximately 200 drilling rigs

were active. As of September 18, 2011, approximately 130 rigs were actively drilling; the slowdown is attributed to depressed natural gas prices (Murphy 2011a, p. 3). Even with natural gas prices down, most companies continue to drill one well per gas unit on the Haynesville Shale in order to maintain their leases (Murphy 2011a, p. 3). By September 2011, as many as 1,500 wells had been drilled with many more anticipated, along with perhaps another 10 years of active drilling on this formation (Murphy 2011b, pp. 2–3).

The Texas Railroad Commission's online maps (available at *http://gis2.rrc.state.tx.us/public/startit.htm*) indicate that natural gas (and some crude oil) gathering and transmission pipelines are found throughout Nacogdoches County. In San Augustine County, the majority of existing pipelines are located in the area north of SH 21 and west of the town of San Augustine, an area of high glade occurrence. To the east of San Augustine, there are fewer pipelines, but, of those that are located in this area, several are large gas transmission lines. One of these big transmission lines lies directly adjacent to the historic Caney Creek Glade Site 7. Sabine County has several major interstate pipelines, but fewer gathering and other transmission lines than the other two counties, and no pipelines near the Sabine County gladecress site (Texas Railroad Commission 2011).

The Texas Railroad Commission regulates the oil and natural gas industry in the State of Texas. The Texas Railroad Commission has detailed information on all existing pipelines, but the agency has no way to predict future routes for new pipelines or wells; they are limited to location data found within permit applications (Nunley 2011, pers. comm.). New pipelines, as well as ones for which routes are being determined, do not display on the Texas Railroad Commission Web site, so although we are aware of the impact that pipeline excavations can have on Texas golden gladecress, we cannot tell where future pipelines may affect existing populations or suitable habitat.

Loss of Texas golden gladecress habitat and plants is inevitable if pipelines are routed directly through population sites. Pipeline installation requires clearing of a path for the pipeline, cutting a trench in which to lay the pipe, recovering of the trench, and restoring the ground's surface. Clearing pipeline pathways eliminates obstacles to construction (NaturalGas.Org 2011, p. 2), which may include the rocky outcrops supporting the Texas golden gladecress. Bulldozing the pipeline path likely permanently removes these rocky ledges and other features, along with the Texas golden gladecress plants and seedbed. After the pipe is put into the ground and the trench covered with soil, elevations are restored and the surface is revegetated, generally using coastal bermudagrass in this region (Rodewald 2011, pers. comm.). The Simpson Farms Texas golden gladecress population, located 6 mi (9.7 km) east of the city of Nacogdoches, was eliminated by a natural gas pipeline that was installed sometime between August 2010 and October 2011 (date of installation determined from comparison of successive years of aerial photography). At this site, the pipeline ROW was approximately 75 ft (23 m) wide, and the entire area formerly occupied by the Texas golden gladecress was covered with deposited sediment or piles of cleared brush (Cobb 2011, pers. comm.). Given the degree of clearing of the ROW and the adjacent dirt work, the known extent of habitat is now gone, and the entire population has likely been extirpated (Cobb 2011, pers. comm.). The Chapel Hill population may also be affected by future pipeline construction; the route for a future pipeline was being surveyed in October 2011 (Cobb 2011, pers. comm.). Although this pipeline does not directly cross the very small population site between the pasture fence and the road, it does lie parallel to, and just inside of, the fence line in a pasture where Texas golden gladecress habitat does exist (Singhurst 2012c, pers. comm.; Singhurst 2012f, pers. comm.).

The current trend over most natural gas shale formations is to drill multiple wells, when possible, and well pad sizes can vary accordingly. Well pad sizes in the San Augustine County area range from several acres to as large as 14 ac (5.67 ha), depending on the number of wells (Loos 2011, pers. comm.; Allen 2011b, pers. comm.). Although most oil and gas companies use existing roads, occasionally the companies need to build new roads, and in these cases the new routes may go through outcrop areas. The fill for pads and roads could cover portions of, or potentially entire, glade sites since some of the glades are so small. Placement of pads or roads upslope of Texas golden gladecress sites may have the potential to affect downslope movement of water to outcrop sites (Ritter 2011b, pers. comm.).

In summary, the remaining populations of Texas golden gladecress and suitable habitat are within areas that are actively being drilled for natural gas. Plants and habitat have been destroyed by the construction of pipelines. The three remaining populations as well as suitable habitat are at risk of being destroyed by construction of natural gas and oil infrastructure (pipelines, well pads, metering stations, and roads) that continue to be constructed throughout the species' range. Exploration and production of natural gas and oil is anticipated to continue in this area for at least the next decade. Texas golden gladecress and its habitat may be directly impacted by the construction of pipelines and other infrastructure, and indirectly by altering the hydrology near occupied sites and suitable habitat. Based on our review of the scientific information, we conclude that natural gas and oil development is a threat to Texas golden gladecress.

Residential and Commercial Construction

Although residential and commercial construction was listed in the species' candidate assessments as a potential threat, there is no evidence that this type of disturbance has directly affected Texas golden gladecress populations. Historically, site selection for building homes and businesses in the town of San Augustine may have taken advantage of the open aspect of the glades; Leavenworth described the area in which he originally collected the species (vicinity of the town of San Augustine) as ''prairies'' (Bridges 1988, p. II–5). However, information about former glades in the area is lacking, as is documentation that the Texas golden gladecress was present where buildings are currently located. Neither San Augustine nor Sabine Counties are experiencing rapid human population growth; San Augustine County saw a 0.9 percent decline in population from 8,946 to 8,865 between 2000 and 2010, while Sabine County had a modest increase of 3.5 percent (10,469 to 10,834) (U.S. Census Bureau 2010a, b), suggesting that residential and associated commercial development does not constitute a high level of threat to habitat throughout the species' range. However, service improvements for existing homes and businesses, including installation of service lines for communications, electric power, water, sewer, and domestic gas are ongoing and do have the potential to occur in Texas golden gladecress habitat (Walker 2012, pers. comm., p. 1). Because water, sewer, and gas lines entail excavations to lay pipe, these activities could have similar consequences to installing natural gas and oil pipelines if the lines pass through an occupied outcrop. Electric power structures in this area are

generally above-ground poles and lines that may be installed, or maintained, in highway ROWs. Although Texas golden gladecress habitat and plants may potentially be impacted by pole placement, the small project footprint, limited to the pole installation, may mean that the small Texas golden gladecress sites could be avoided by moving pole locations a few feet to either side of an outcrop. In those cases where new power lines are built outside of established ROWs, Texas golden gladecress populations might be damaged during clearing of habitat by vehicles and heavy equipment traversing a glade. However, there is also potential that clearing of woody vegetation out of invaded glades may reopen them to the point that the Texas golden gladecress could show a positive response.

Proliferation of poultry farms was also listed as a potential threat to Texas golden gladecress habitat. Building poultry production houses and associated facilities would cover Texas golden gladecress habitat in the same manner as would residential or other types of commercial construction. Aerial photography from November 2011 (Google Earth, 2011) shows 21 poultry farms within the Texas golden gladecress's range (the approximate zone of the Weches Formation) in Sabine and San Augustine Counties. Of the 21 total, 18 are located on the San Augustine County Weches Formation. None of the existing farms is adjacent to any of the known population locations, and we are unable to determine if any Texas golden gladecress habitat or plants were lost when these production facilities were built. Among the characteristics in east Texas that make a site desirable for poultry production are long, flat stretches of ground with a good, solid hardpan as opposed to rocky outcrops on slopes, on the tops of ridges, or in low-lying areas (Ritter 2012, pers. comm.), such as those occupied by the Texas golden gladecress. This site-selection preference means that poultry producers would most likely avoid Texas golden gladecress habitat. In the last 2 years, most of the poultry farm construction has taken place in counties north of San Augustine and Sabine, and the only activity in the Weches Formation zone has been renovations to existing farms (Ritter 2012, pers. comm.). The construction of poultry farms is not considered a threat to Texas golden gladecress because poultry farm site selection does not appear to have significant overlap with Texas golden gladecress habitat.

Roads

Two of the three extant Texas golden gladecress populations, Geneva and Caney Creek Glade Site 1, extend into ROWs managed by TXDOT. The third confirmed population at Chapel Hill is located on a small tract adjacent to a county road and is not considered to be in a road ROW. In the 1990s, a road project impacted the portion of the Caney Creek Glade Site 1 population that occurred in the SH ROW when Sunrise Road was widened and straightened (Singhurst 2012g, pers. comm.); however, not all plants were destroyed. Review of a 2011 list of TXDOT-planned projects did not show any future road improvements or expansions near known Texas golden gladecress population sites. Based on the best scientific and commercial information available, we conclude that new road construction or improvements to the existing roads does not pose a threat to the two Texas golden gladecress populations that occur within ROWs, or to the third population that does not.

Invasive Species

A major stressor to the habitat of Texas golden gladecress is the ongoing invasion of nonnative and native shrubs, trees, and vines into the formerly open-sun, herbaceous, glade vegetation communities. This woody, weedy plant invasion is occurring on at least a portion of all three remaining population sites. The historic Caney Creek Glade Site 7 appears, from 2010 aerial photography, to be almost 100 percent overgrown with woody vegetation.

Glades in most parts of the United States are declining due to grazing, fire suppression, and the subsequent invasion by woody vegetation. In presettlement times, glades were maintained by periodic fires and browsing of woody vegetation by white-tailed deer (*Odocoileus virginianus*) and elk (*Cervus canadensis*). This natural disturbance regime changed over the last century due to active fire suppression and diminished numbers of browsers reduced by hunting pressure (Rossiter 1995, p. 2). Although the harsh environment of glades helps to preclude tree establishment, without disturbance such as fire, woody plants will invade (Hartman 2005, p. 4). The exclusion of fire has allowed encroachment of trees, shrubs, vines, and other woody plants into glade communities (Borland 2008, p. 3).

As woody plants mature, they produce canopies that reduce the amount of sunlight reaching the ground. Sun-loving plants like Texas golden gladecress that are adapted to hot, dry sites do not tolerate shade well. Research conducted in Missouri's cedar glades showed that herbaceous plant production rapidly declined when red cedar cover exceeded more than one third of a glade's area (Rossiter 1995, p. 3). A combination of reduced sunlight (shading) and increased leaf litter can act to suppress herbaceous species (Hartman 2005, p. 2). These types of changes in glades that were historically hot and dry can contribute to cooling of the ground and enhancing of moisture content. Wetter, cooler conditions during traditionally hot, dry summer months may be counter-productive for sun-loving glade species by encouraging invasion by cool season vegetation and exotic species. Buildup of a deeper organic layer can also facilitate the establishment of woody plants that results in further shading of the ground (Hartman 2005, p. 2).

Invading species can also compete directly with Texas golden gladecress for water and nutrients. Interspecific competition has been noted as potentially causing reduction in the extent of the root system in several small outcrop plant species, thereby reducing their nutrient uptake (Baskin and Baskin 1988, p. 836). Shading further stresses the herbaceous layer, including the Texas golden gladecress. In Missouri, stressed glade communities were more prone to invasion from invasive species like *Schedonorus phoenix* (tall fescue), *Sericea lespedeza* (Chinese bushclover), and *Rosa multiflora* (multiflora rose) (Hartman 2005, p. 4). On Texas' Weches glades, Carr (2005, p. 2) reported tall fescue at the Chapel Hill site, and Macartney rose was listed as a major invading species in pastures throughout the range of Texas golden gladecress. The Weches outcrops that parallel SH 21 appear to support the heaviest Macartney rose infestation in San Augustine County (Ritter 2011a, pers. comm.). A 1995 report by the Service's Clear Lake Ecological Services Field Office described known white bladderpod sites, including several with Texas golden gladecress, all of which needed active management to preclude invasion by woody shrubs (Nemec 1996, p. 1).

Texas golden gladecress habitat has been documented since the 1980s to be affected by an accelerated succession from open, herbaceous Weches outcrops to dense shrub thickets and closed canopy woodlands (Service) 1992, p. 7; Carr 2005, p. 2; Nemec 1996, p. 4). The most serious invaders are included in Table 5. Encroachment of these species is thought to suppress the less

competitive components of the community like Texas golden gladecress and white bladderpod (TNC 2003, p. 4). Some of these invasive species can grow on the shallow outcrop soils, while others can invade open space around the edges of the outcrop ledges (Service 1992, p. 7). Some of the native invading species are likely controlled by occasional wildfire under natural conditions. More serious are the introduced invaders, including the small hop clover that can cover Weches outcrops and eliminate other vegetation. The introduced shrubs, including Macartney rose and Japanese honeysuckle, will invade open space, including Texas golden gladecress habitat (Service 1992, p. 7).

TABLE 5—PRIMARY INVASIVE SPECIES FOUND IN TEXAS GOLDEN GLADECRESS HABITAT

Scientific name	Common name
Nonnative Species	
Rosa bracteata	Macartney rose.
Lonicera japonica	Japanese honeysuckle.
Stellaria media	chick-weed.
Bromus japonicus	Japanese brome.
Kummerowia striata	Japanese bush-clover.
Ligustrum japonicum	Japanese privet.
Melilotus indicus	sour clover.
Cynodon dactylon	coastal bermudagrass.
Trifolium dubium	small hop clover.
Native Species	
Andropogon virginicus	broomsedge.
Plantago virginica	pale-seeded plantain.
Euphorbia sp	spurge.
Frangula caroliniana	Carolina buckthorn.
Rhamnus lanceolata	lanceleaf buckthorn.
Crataegus crus-galli	hawthorn.
Crataegus spathulata	hawthorn.
Prunus mexicana	Mexican plum.
Viburnum rufidulum (=prunifolium)	rusty blackhaw.
Rhus glabra	smooth sumac.
Ulmus alata	winged elm.
Berchemia scandens	Alabama supplejack.
Cissus incisa	ivy treebine.

The three extant Texas golden gladecress sites have shrubs and trees encroaching into formerly open glade habitat. At the Chapel Hill site, Carr (2005, p. 2) noted that 13 scattered pines within a 6,000-ft^2 (557-m^2) area produced a total canopy coverage of less than 10 percent of site, but indicated that future shading effects when the pine trees reach maturity might prove detrimental. At this same site, other woody plants were controlled, but not eliminated, by regular shredding (Carr 2005, p. 2).

Texas golden gladecress does show some ability to persist at sites that have been overrun by woody vegetation. At the Geneva site, the area with the Texas golden gladecress was bulldozed, and although the site was reported as destroyed, the species reappeared within several years. At the Chapel Hill site, brush removal actions to benefit white bladderpod also resulted in the reappearance of the Texas golden gladecress after its apparent absence for 10 years. This suggests that the Texas golden gladecress's seed bank may be able to remain viable over extended time periods even though the habitat is overgrown by woody species.

Fire suppression is considered a threat to the continued integrity of the native plant communities of the Weches glades because lack of fire contributes to woody and weedy native and nonnative plants being able to more quickly overtake the open glade areas. TNC's Area Conservation Plan for the San Augustine Glades indicated that fire suppression in the Coastal Plain Carbonate Glades (another reference for the Weches glades) constituted a high level of threat (The Nature Conservancy 2003, p. 9) and that the fire frequency was ''fair to poor''; the ideal frequency being burns occurring every 5 to 10 years. For future viability and biodiversity health in the glades, the plan said that fire processes should be restored or simulated, where feasible (The Nature Conservancy 2003, p. 8), and categorized development and implementation of fire management and invasive species plans with partner landowners as a top priority conservation strategy (The Nature Conservancy 2003, p. 13). TNC's plan also stated that seasonal burns could create habitat conditions allowing establishment and expansion of white bladderpod populations by triggering germination and reducing completion from woody invasives, and referred to ''limited data'' indicating that burns conducted July through October (non-bloom period) are the most beneficial for the bladderpod. This plan also indicted that this is probably true for the Texas golden gladecress.

Although information about the direct effects of prescribed burns on Texas golden gladecress is not available, Dr. Michael Warnock did conduct experimental burns at Caney Creek Glade Site 6 in the mid-1990s to determine the impacts on white bladderpod. His experimental burns did result in white bladderpod showing a positive reproductive response. However, Dr. Warnock did not list the Texas golden gladecress in his final report, and did not mention anything about its response to the experimental burn (Warnock 1992, entire). The TXNDD's element of occurrence records include descriptions of habitat conditions, including mention of winter burns, at a time when the Texas golden

gladecress was present (in fruit) at two historic Texas golden gladecress sites. At Caney Creek Glade Site 2, Texas golden gladecress was last observed in March 1988, when the site was described as being brush-hogged and burned that same year. In 1988, at the Caney Creek Glade Site 7, part of the Weches formation glade area below a shrubby slope was in part burned that winter (or early spring), and the Texas golden gladecress itself was described as being locally abundant in a very small area on a seepy, gravelly glade (TXNDD 2012b, pp).

Bermudagrass, ryegrass, and bahiagrass are nonnative grasses that have been documented as occurring at some white bladderpod and Texas golden gladecress sites. Nemec (1996, p. 4) described bermudagrass as among the most serious invaders of white bladderpod and Texas golden gladecress habitat. Carr (2005, p. 4) listed ryegrass (although he described it as *Lolium multiflorum* (English rye)) as a common grass component at the Chapel Hill Site in spring 2005. George (1987, pp. 26–36) found bermudagrass, bahiagrass, and perennial ryegrass at San Augustine County glade sites where he assessed the herbaceous vegetation community. Using ''importance values'' for plant species that were calculated by summing the relative density and the relative frequency of the species (with a value of 1 being highest or most dense and most frequent), he found bermudagrass, ryegrass, and bahiagrass to rank in importance as 38, 53, and 69 (respectively) of 80 species at site 1; while ryegrass, bermudagrass, and bahiagrass ranked as 13, 17, and 23 in importance (respectively) out of a total of 75 species at site 2. Interestingly, at site 3, which was the sole site with Texas golden gladecress present, only ryegrass was found; the other two species were absent. Some of the differences between the three sites (as described by George 1987, pp. 26–36) may have contributed to the presence of all the invasive grasses at sites 1 and 2, where they varied with respect to their frequency and density. Site 3 (where Texas golden gladecress occurred) was the rockiest and most fossiliferous of the three sites, with soil and a gravel-like substrate containing many small rocks. Sites 1 and 2 appeared to include more areas of deeper, more developed soil. Site 3 was the wettest in the spring and the driest in the summer and fall, due to rapid drying of the thin soil. George (1987, pp. 26–36) postulated that the thin, rocky soils of Site 3 were probably a limiting factor that helped to explain the generally lower densities of most of the plants at the site.

George (1987, pp. 26–36) also described a seasonality component to the vegetation growth on the Weches glades. This seasonality may help to keep the habitat conditions suitable for the Texas golden gladecress even if bermudagrass, bahiagrass, and ryegrass are present. He noted that the spring was dominated by a sequence of diverse annual forbs, and as the summer progressed, rainfall diminished, the soil dried out, and the flora became very sparse. The grasses exhibited large growth spurts in September and dominated all three sites; however, this time of grass dominance (summer and fall months) is the time of year when Texas golden gladecress is not present aboveground. Therefore, seasonality of growth should help to somewhat ameliorate competition between the grasses and the annuals on the outcrops.

With regard to ROWs, Texas golden gladecress does extend into highway ROWs at several sites. Coastal bermudagrass and bahiagrass are included in mixtures used to re-seed ROWs in the east Texas area (Adams 2013c, pers. comm). Bahiagrass is a deep-rooted perennial adapted to a wide range of soils. It spreads via stolons and rhizomes, in addition to being a prolific seed producer. Bahiagrass is most productive on sandy soils with a pH of 5.5 to 6.5 (Houck 2009, p. 1). These qualities would seem to contraindicate bahiagrass colonizing and persisting on the parts of the outcrop where Texas golden gladecress grows, since bahiagrass does not share an affinity for the thin, rocky, or nonexistent soils under the Texas golden gladecress.

Ryegrasses grow best on fertile, well-drained soils; however, they can also grow on soils where conditions are too wet at certain times of the year to support other grasses because ryegrass is a heavy water user (Hall 1992, p. 1). Soil pH for optimum ryegrass production is between 6.0 and 7.0 (Hall 1992, p. 3), so it may be able to tolerate the alkalinity of the Weches outcrops. Perennial ryegrass requires a dormancy period of cool temperatures before the photoperiod can induce flowering, and it normally produces seed heads during late spring (Hall 1992, p. 1). This timing of growth and reproduction may be offset enough to help to minimize competition if and when ryegrass does grow onto Texas golden gladecress habitat.

Bermudagrass is a vigorous, stoloniferous grass that can rapidly invade cultivated land in areas of high rainfall or irrigation (Duble 2013, p. 1). Bermudagrass has a fibrous, perennial root system with vigorous, deep rhizomes. Root production and dieback is reported to be especially high in the spring when shoot production begins. Soil temperatures above 65 degrees Fahrenheit (°F) (18.3 degrees Centigrade (°C)) are required for significant growth of rhizomes, roots, and stolons, with the optimum soil temperature for root growth around 80 °F (27 °C) (Duble 2013, p. 2). Bermudagrass has the capability of surviving extreme droughts and produces seed heads under stress conditions (Duble 2013, p. 3). This invasive grass can grow well on a wide variety of soils from heavy clays to deep sand, as long as fertility is not limiting. It can tolerate both acid and alkaline soil conditions and salinities. Bermudagrass does not tolerate poorly drained sites like compacted soils and heavy clays (Duble 2013, p. 6). Some qualities of bermudagrass, like its growth and spread via stolons and shoot production at nodes, along with its tolerance of varying pH conditions, might enhance its ability to invade the Weches outcrop habitats, and indeed it has been noted as a significant invader at some outcrop sites. However, its lack of tolerance for poor drainage might preclude it from the portions of the outcrop favored by the Texas golden gladecress. Also, its soil temperature requirements for growing periods may offset its season of growth and reproduction from that of the Texas golden gladecress.

Nonnative and native woody species, including woody shrubs, vines, and trees, continue to degrade Texas golden gladecress's habitat across the species' entire range. This threat is significant for the species because it is ubiquitous and has led to declines in, or disappearance of, Texas golden gladecress populations, along with altering the species' habitat. Based on our review of the scientific and commercial data available, we conclude that invasion of woody and weedy nonnative and native plants into Texas golden gladecress habitat is a threat across its range. We recognize the potential for bermudagrass, bahiagrass, and ryegrass to impact the habitat of the Texas golden gladecress, especially in those situations where these grasses are deliberately planted nearby to Texas golden gladecress populations. However, there are characteristics of each of the three that may help limit competition between these nonnative plants and the Texas golden gladecress, at least on those Texas golden gladecress sites that have sufficient outcrop rock ledge or rock face that separate the Texas golden gladecress

from the deeper soils needed by the grasses. Based on this information, we do not consider these specific species a threat at this time. In the future, if these grasses are shown to impact the Neches River rose-mallow or Texas golden gladecress, we will work with the appropriate agencies and industries to address these impacts.

Habitat Damage Associated With Grazing

Grazing has been implicated as a habitat threat because it can facilitate the encroachment of undesirable vegetation into the outcrop habitat, and because it may lead to trampling of plants and soil compaction. Historically, the introduction of grazing livestock into east Texas, coupled with heavy grazing pressure, adversely impacted glade sites by facilitating the spread of invasive woody plants, and potentially trampling native plants. Acting in concert with fire suppression, heavy grazing pressure may have accelerated conversion of the grassy prairies and herbaceous glades to the dense, thorny masses of vegetation seen at many sites today (Nemec 1996, p. 4; Service 1992, p. 7). Overgrazing of Texas golden gladecress habitat can promote invasion by woody species and enhance competition on the glade from herbaceous weeds like pale-seeded plantain, Japanese brome, and spurge (Service 1992, p. 7). Grazing livestock serve as a source of introduced species' seeds as well as supplying nutrients for competitive native weedy species. Grazing animals can also encourage unpalatable invasive species like Macartney rose to move into areas where more preferred natives have been grazed out (Bridges 1988, p. II–35). The negative impacts to Texas golden gladecress habitat from woody plant invasion are detailed in the ''Invasive Species'' section.

There is no documentation of Texas golden gladecress plants being lost due to trampling. Potential does exist for this to happen, for example, at the Geneva Site, where Texas golden gladecress plants have been observed growing directly adjacent to and inside the fence where a cow trail is evident. Loss of plants in this small area has not been confirmed, and the larger part of this population grows in the SH 21 ROW, where no grazing takes place, so it is unlikely that trampling at this site truly constitutes a threat to the species. Grazing also occurs within the fenced private portions of the other two remaining Texas golden gladecress population sites (Caney Creek Glade Site 1 and Chapel Hill), where individual plants may be subject to trampling if they are growing directly in cattle trails.

Grazing does occur on portions of the three extant population sites, but we do not have information to show that grazing has destroyed Texas golden gladecress habitat or plants. Based on our review of the best scientific information, we conclude that the direct effects of grazing are not a threat to Texas golden gladecress.

Land Conversion for Agriculture and Silviculture

Another potential habitat threat is conversion of Weches glade outcrops to nonnative grass pastures or conversion of existing pasture lands that may contain viable outcrops to pine tree plantations. Over the last 200 years, most of the native vegetation communities of east Texas were dramatically altered by human activities as the region was logged and extensively cultivated (Diggs *et al.* 2006, p. 76). Due to widespread land use changes throughout the entire range of the Texas golden gladecress, and the fact that the glade areas were always somewhat small and surrounded by forest, there is a high likelihood that some glades were negatively affected by past agricultural and silvicultural land cover conversions (Service 1992, p. 7). At least one Texas golden gladecress population was described as being lost to this type of land use change during the 1980s (Turner unpubl. Data, in TNC 2003, p. 2).

Conversion of native vegetation communities to pasture or row crop in the region is much less common now. The Weches outcrops are not considered desirable substrate for planting to pasture, as landowners are not interested in deep plowing, breaking up, or dragging out rocks (Ritter 2011a, pers. comm.). The ''Redland'' soils that are exposed in the Weches outcrops are thin and rocky. The Natural Resources Conservation Service recommends avoiding these soils because there are not practical conservation practices for these types of sites (Ritter 2011a, pers. comm.). The more prevalent land use change now is from pasture to tree plantation (Ritter 2011a, pers. comm.). Within the last few years, many Sabine and San Augustine County landowners have shifted from grazing to timber planting (Ritter 2011a, pers. comm.). Most timber planting consists of *Pinus taeda* (loblolly pine) and *Pinus palustris* (longleaf pine), planted on 8–10 ft (2.4–3 m) centers. Although landowners will likely avoid planting directly onto Weches outcrops because these rocky soils will not support trees, it is conceivable that the spacing between plantings would allow trees to be planted near the edges of outcrops (Ritter 2011a, pers. comm.; Ritter 2012, pers. comm.). As these trees mature, their canopies may potentially cause shading problems on glade areas (see ''Invasive Species'' section for explanation of negative effects of shading). For example, it appears that former habitat adjacent to the Chapel Hill site may be planted, in part, to rows of trees.

In addition to shading, pine tree plantings may also result in production of large amounts of pine needle litter that could accumulate in small glade openings near the trees. Where a mid-story of trees develops, light may be blocked from reaching the ground level by upper-canopy and mid-story shading; with a subsequent build-up of leaf litter, the herbaceous species can be suppressed. In the face of fire suppression, Missouri glades became choked with litter that kept the ground moister and cooler, leading to replacement of the sun-loving natives by invading cool-season vegetation and exotic species (Hartman 2005, pp. 2–4). The decomposition of pine leaf litter also facilitates the germination of pines as the soil deepens within the glade (Walker 2012, pers. comm., p. 1).

Current data do not suggest that the establishment of pine tree plantations is a threat to the species. However, if in close proximity to occupied glade openings, this may potentially cause problems for Texas golden gladecress. If this becomes an issue in the future, we will consider it in our recovery planning and implementation.

Herbicide Use

The candidate assessments for Texas golden gladecress list herbicide use in highway ROWs and for agricultural purposes as a potential threat to the species because of the plant's occurrence within highway ROWs and in pastures. Herbicide use to maintain highway and county road ROWs has the potential to destroy the small subpopulations that exist in the TXDOT ROWs at the Geneva and Caney Creek Glade 1 sites. If timing of the herbicide application coincides with the growing and reproductive period of the year for the Texas golden gladecress, all individuals that are growing in the ROW might be extirpated if the herbicide contacts all Texas golden gladecress individuals in these small sites. Herbicide exposure from highway and county road maintenance would affect only a small portion of two extant sites, and recent information suggests that use of herbicides for State and county roads in this area is not a widespread practice

(Adams 2011b, pers. comm.; Hunter 2011, pers. comm.). We do not have documentation of negative impacts to the species from herbicide applications for road maintenance. The TXDOT uses herbicides only on an ''as needed'' basis to eliminate encroaching woody plants or along the edges of the road pavement (Adams 2011b, pers. comm.). San Augustine County does not use herbicides for county roadside maintenance due to costs (Hunter 2011, pers. comm.).

With regard to agricultural herbicide use in San Augustine and Sabine Counties, the Natural Resources Conservation Service has a program to assist landowners with Macartney rose control using Grazon® P+D herbicide. This program involves a 3-year approach—broadcast spraying from a tractor during the first 2 years, followed by individual plant treatments in the third year. Grazon® P+D has active ingredients of picloram and 2,4-D (dichlor) and can persist in some soils for months and act as a preemergent, killing germinating seedlings. In an appendix to TNC's Conservation Area Plan for the San Augustine Glades (The Nature Conservancy 2003, pp. 30–31), it is one of several herbicides identified as potentially harmful to the Texas golden gladecress and white bladderpod if used near their habitats. Management recommendations include avoiding use of this herbicide within 200 yards (yd) (183 m) of areas described as habitat within the region, along with limiting timing of use to spot treatments only between July 1 and August 30. Because Macartney rose is infesting the region of the Weches outcrops, and since this exotic invader is capable of establishing itself in Weches glades and has been noted as occurring at Texas golden gladecress population sites, it is reasonable to assume that some areas of glade habitat are included in these treatment programs. Thus, although control of Macartney rose would likely benefit the Texas golden gladecress in the long term, application of a pre-emergent herbicide has the potential to eliminate the Texas golden gladecress altogether if it stays in the soil long enough to kill emerging seedlings. We have no evidence that this type of application has affected Texas golden gladecress populations to date.

Based on our review of the scientific information, we conclude that using preemergent herbicides such as Grazon® P+D that persist in the soil for brush control constitute a threat to Texas golden gladecress's emerging seedlings.

Climate Change

Our analyses under the Act include consideration of ongoing and projected changes in climate. The terms ''climate'' and ''climate change'' are defined by the Intergovernmental Panel on Climate Change. The term ''climate'' refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (Intergovernmental Panel on Climate Change 2007a, p. 78). The term ''climate change'' thus refers to a change in the mean or variability of one or more measures of climate (for example, temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (Intergovernmental Panel on Climate Change 2007a, p. 78).

Scientific measurements spanning several decades demonstrate that changes in climate are occurring, and that the rate of change has been faster since the 1950s. Examples include warming of the global climate system, and substantial increases in precipitation in some regions of the world and decreases in other regions. For these and other examples, see Intergovernmental Panel on Climate Change 2007a, p. 30 and Solomon *et al.* 2007, pp. 35–54, 82–85. Results of scientific analyses presented by the Intergovernmental Panel on Climate Change show that most of the observed increase in global average temperature since the mid-20th century cannot be explained by natural variability in climate, and is ''very likely'' (defined by the Intergovernmental Panel on Climate Change as 90 percent or higher probability) due to the observed increase in greenhouse gas (GHG) concentrations in the atmosphere as a result of human activities, particularly carbon dioxide emissions from use of fossil fuels (Intergovernmental Panel on Climate Change 2007a, pp. 5–6 and figures SPM.3 and SPM.4; Solomon *et al.* 2007, pp. 21–35). Further confirmation of the role of GHGs comes from analyses by Huber and Knutti (2011, p. 4), who concluded it is extremely likely that approximately 75 percent of global warming since 1950 has been caused by human activities.

Scientists use a variety of climate models, which include consideration of natural processes and variability, as well as various scenarios of potential levels and timing of GHG emissions, to evaluate the causes of changes already observed and to project future changes in temperature and other climate conditions (for example, Meehl *et al.* 2007, entire; Ganguly *et al.* 2009, pp. 11555, 15558; Prinn *et al.* 2011, pp. 527, 529). All combinations of models and emissions scenarios yield very similar projections of increases in the most common measure of climate change, average global surface temperature (commonly known as global warming), until about 2030. Although projections of the magnitude and rate of warming differ after about 2030, the overall trajectory of all the projections is one of increased global warming through the end of this century, even for the projections based on scenarios that assume that GHG emissions will stabilize or decline. Thus, there is strong scientific support for projections that warming will continue through the 21st century, and that the magnitude and rate of change will be influenced substantially by the extent of GHG emissions (Intergovernmental Panel on Climate Change 2007a, pp. 44–45; Meehl *et al.* 2007, pp. 760–764, 797–811; Ganguly *et al.* 2009, pp. 15555–15558; Prinn *et al.* 2011, pp. 527, 529). (See IPCC 2007b, p. 8, for a summary of other global projections of climate-related changes, such as frequency of heat waves and changes in precipitation. Also see Intergovernmental Panel on Climate Change 2011 (entire) for a summary of observations and projections of extreme climate events.)

Various changes in climate may have direct or indirect effects on species. These effects may be positive, neutral, or negative, and they may change over time, depending on the species and other relevant considerations, such as interactions of climate with other variables (for example, habitat fragmentation) (Intergovernmental Panel on Climate Change 2007a, pp. 8–14, 18–19). Identifying likely effects often involves aspects of climate change vulnerability analysis. Vulnerability refers to the degree to which a species (or system) is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the type, magnitude, and rate of climate change and variation to which a species is exposed, its sensitivity, and its adaptive capacity (Intergovernmental Panel on Climate Change 2007a, p. 89; Glick *et al.* 2011, pp. 19–22). There is no single method for conducting such analyses that applies to all situations (Glick *et al.* 2011, p. 3). We use our expert judgment and appropriate analytical approaches to weigh relevant information, including

uncertainty, in our consideration of various aspects of climate change.

As is the case with all stressors that we assess, even if we conclude that a species is currently affected or is likely to be affected in a negative way by one or more climate-related impacts, it does not necessarily follow that the species meets the definition of an ''endangered species'' or a ''threatened species'' under the Act. If a species is listed as endangered or threatened, knowledge regarding the vulnerability of the species to, and known or anticipated impacts from, climate-associated changes in environmental conditions can be used to help devise appropriate strategies for its recovery.

The climate in Texas has shown a long-term gradual warming trend; pollen, plant macrofossils (fossils large enough to be seen without a microscope), packrat middens (ancient ''garbage piles'' left by rodents in the genus *Neotoma*), and other evidence show substantial climate changes in Texas over the past 15,000 years (end of the last glacial period), when the mean annual air temperature was 9 °F (5 °C) cooler than present (Diggs *et al.* 2006, p. 73). The Texas climate is considered highly variable, with seasonal precipitation patterns that dramatically increase from west to east, and temperatures that increase from north to south (Nielsen-Gammon 2008, p.1). Climate models predict increased temperatures, and concurrent increased evapotranspiration, and decreased regular precipitation and soil moisture in Texas (Diggs *et al.* 2006, p. 73), all of which would have negative implications for Texas golden gladecress. Based on a climate model developed by the United Kingdom Hadley Center (HadCM2), temperatures in Texas could increase by 3 °F (1.7 °C) in spring (range of 1–6 °F (0.6–3.3 °C)) and about 4 °F (2.2 °C) in other seasons (with range of 1–9 °F (0.6–5 °C)).

Droughts are not uncommon in Texas (Texas Water Resources Institute 2011, pp. 1–13). The most severe drought recorded in Texas occurred in the 1950s, and in the last 15 years there have been widespread droughts: in 1996, 1999–2000, 2005–2006, 2007, and 2010–2011 (Texas Water Resources Institute 2011, pp. 10–12). Projections are for winter precipitation to decrease by 5 to 30 percent, although it may increase by 10 percent in other seasons (Environmental Protection Agency 1997, p. 2).

East Texas is subtropical with a wide range of extremes in weather (Diggs *et al* 2006, p. 65). Mean annual temperatures range from 70 °F (21 °C) in the south to approximately 64 °F (18 °C) in the north, although extremes like 0 °F (−18 °C) and 110 °F (43 °C) are observed occasionally. The highest reported eastern Texas temperature was 118 °F (48 °C) in Collin County in 1936 (Bomar 1995, in Diggs *et al.* 2006, p. 65). Average rainfall ranges from 60 in (152 cm) at the State's southeastern border to 40 in (98 cm) at the western edge. These rainfall differences are related to proximity to the warm, moist air supplied by the Gulf of Mexico. The native vegetation of this region evolved with, and is adapted to, recurrent extremes (Diggs *et al.* 2006, p. 67). That said, the Pineywoods region is vulnerable to even small climatic shifts because it is ''balanced'' on the eastern edge of a dramatic precipitation gradient. Temperature increases that are projected in climate change scenarios will likely be associated with increases in transpiration and more frequent summer droughts. Decreased rainfall may result in an eastward shift in the forest boundary and replacement of the Pineywoods forest with scrubland (Diggs *et al.* 2006, p. 80). There is potential for loss of species that are limited to mesic conditions of deep east Texas, such as the hardwood forests surrounding the Weches glades. There may also be a northerly shift of southerly species based on climate models that predict increasing temperatures and, therefore, increasing evapotranspiration and decreasing regional precipitation and soil moisture (Diggs *et al.* 2006, p. 73).

Although east Texas has typically received a greater amount of precipitation during December through March than other regions (Neilsen-Gammon, p. 24), future precipitation trends indicate a decrease in precipitation toward the middle of the 21st century (Nielsen-Gammon, p. 28). The timing of this precipitation is crucial for the Texas golden gladecress, which is dependent on late-fall-through-spring moisture to generate the seeps and pooling that it requires for germination, growth, and reproduction. Reproduction is known to be negatively impacted by drought as evidenced by declines of 91 to 67 plants at the Chapel Hill site and 490 to 96 plants at the Caney Creek Glade Site 1 during the 1999–2000 droughts (Service 2010b, p. 5; Singhurst 2011a, pers. comm.). It is unknown how the Texas golden gladecress will respond to continued years of drought, especially when combined with other threats. Godwin (2012, pers. comm., p. 4) noted that droughts have had a major effect on the distribution of biota in east Texas and hypothesized that drought has contributed to isolation and endemism in the glade flora.

A warmer climate with more frequent droughts, but also extreme precipitation events, may adversely affect Texas golden gladecress by altering the glade habitat the species is known to occupy. It may improve habitat conditions for invasive plant species and other plants (Service 2010b, p. 5), although, conversely, extreme drought years may contribute to keeping woody species from overtaking glades by making the shallow soil even more inhospitable to larger plants. Godwin (2012, pers. comm., p. 1) personally observed the drought of 2011 ''pushing back'' the edges of Weches glades and tiny saline prairies. Climate extremes, especially drought and low temperatures, probably play a bigger role in excluding nonadapted species than average conditions will (Diggs *et al.* 2006, p. 80). Because the Texas golden gladecress is a habitat specialist, being closely tied to the geology and soils on the Weches outcrops, it seems unlikely that this species will be flexible in terms of shifting to new habitats if the glades become unsuitable due to lack of winter-spring moisture. Also, if conditions shift in favor of nonnative plants, the Texas golden gladecress will likely be negatively affected. Although the Texas golden gladecress has survived cycles of drought in the past, as well as some years with extraordinary temperature shifts, it may have done so in a landscape where it was more abundant and with populations distributed in closer proximity to one another. Based on our review, the best scientific and commercial data available did not provide us with information regarding the species' seedbank, so we do not know how many consecutive years of poor conditions (in terms of low rainfall and high temperatures) the species can survive.

The best scientific and commercial data available do not provide reliable predictions for future patterns of precipitation and temperature that are specific to east Texas. While it appears reasonable to assume that climate change will occur within the range of Texas golden gladecress, at this time we do not have information to indicate specifically how climate change may affect the species, its habitat, or responses of invasive species in these habitats.

Other Conservation Efforts

Habitat conditions conducive to the Texas golden gladecress's persistence are being maintained at the Chapel Hill population site by the landowner. Texas golden gladecress was an incidental

beneficiary of a brush removal project done for white bladderpod at this site in 1995, when the private landowner, working in cooperation with the Service, cleared shrubby overgrowth from his small tract of land. As a result of this glade being reopened, the Texas golden gladecress reappeared after a 10-year absence (Nemec 1996, p. 5). This success demonstrated that removal of woody and weedy invaders may help the Texas golden gladecress seedbed to germinate and the plant to emerge. Because this site experienced rapid reinvasion of shrubs, repeated maintenance was required to keep the site open, and the landowner has voluntarily continued to mow or bushhog at least once per year (Singhurst 2012f, pers. comm.). As a result, the Texas golden gladecress and bladderpod were still seen to occupy this site as recently as February 2012 (Singhurst 2012f, pers. comm.).

Within the past several years, the Service's Partners for Fish and Wildlife Program has funded a habitat restoration project involving brush clearing and planting of white bladderpod in a glade at a privately owned tract in San Augustine County. It was also hoped that Texas golden gladecress would benefit from this project, but the species has not been detected at the site to date.

A past conservation effort proved that there is some potential to reintroduce or create new populations of Texas golden gladecress. The species was successfully introduced via seed into apparently appropriate habitat in Nacogdoches County at a site located approximately 30 mi (48 km) west of its historic range in the late 1980s, where it continued to grow until 2011, when a pipeline excavation eliminated the population. The success of this introduction effort was a positive indication of possibilities to augment existing population sites or introduce Texas golden gladecress into other currently unoccupied but suitable habitat sites to form new populations.

In addition to habitat projects, the Service funded several projects with TNC, including one that provided for 3 years of status surveys for Texas golden gladecress and white bladderpod. These surveys, completed in 2006, were the sole source of population numbers for these species for several years. TNC also attempted to identify appropriate glade habitats in which Texas golden gladecress and white bladderpod might be found using GIS data (aerial, geology, and hydrology sources) (Turner 2000 pers. comm.), but follow-up site visits showed little Weches habitat and no new Texas golden gladecress populations at what appeared to be suitable sites (Turner 2003, p. 4, in Service 2010a). In 2001, TNC collected Texas golden gladecress seeds from four sites for cultivation, research, and long-term storage, and as seed sources for reintroduction work. The seeds were given to Mercer Arboretum, where they have been in long-term storage, as well as being used for some early germination and cultivation work. The species was successfully introduced into apparently appropriate habitat in Nacogdoches County at a site located approximately 30 mi (48 km) west of its historic range in the late 1980s, where it grew and reproduced through 2011, when it was eradicated by construction of a pipeline. The success of this reintroduction project may bode well for future efforts to increase the numbers of populations by reintroductions or introductions to new sites.

Summary of Factor A

The threat that has the most significant impacts to Texas golden gladecres populations is the loss and degradation of habitat. Specifically, surface quarrying of glauconite and the exploration and development of oil and natural gas wells and associated roads and pipelines have destroyed 50 percent of the known populations between the mid-1990s and 2011. The threats from quarry development are likely to continue, as glauconite is currently in demand for road bed and well pad construction, as well as for use in fertilizer and as an animal feed additive. For the past several years, energy exploration and production, especially natural gas, has been active due to development of the natural-gas-bearing Haynesville Shale, which underlies the entire range of Texas golden gladecress. For the four remaining populations, these activities pose ongoing threats because we cannot predict whether new pipelines, well pads, roads, or quarries are planned for the areas where the populations occur. The populations of Texas golden gladecress are found mainly on privately owned land where no level of protection for the plants is guaranteed. Portions of two extant populations extend into SH ROWs where TXDOT has the ability to provide some protections but only for those few plants that are on the ROW. Much of the species' potential habitat throughout its range occurs on private lands that have not been surveyed; therefore, the current level of threats across these lands cannot be assessed. The excavation activities associated with surface quarrying of glauconite and oil and gas development are threats that have significant impacts to the known extant populations and associated habitats of the gladecress, both now and in the future.

We have also determined that the damage to Texas golden gladecress plants and outcrop habitat that is associated with excavations may occur when pipelines for water, sewer lines, gas connections to homes, and communication lines are installed. New power lines that are built outside of established ROWs also have potential to damage Texas golden gladecress populations and habitat if land-clearing activity and heavy equipment directly cross occupied outcrops. Although we acknowledge that these activities constitute potential threats to the species and its habitat, we do not know where service improvements are planned within the range of the species or the number of these types of projects that are planned for the future.

Texas golden gladecress also faces threats throughout its range from competition for light and nutrients from both native and nonnative, invasive, woody plants, including the nonnative Macartney rose. We have determined that the extant populations will decline or become extirpated unless they are periodically maintained to remove invading trees and shrubs. Additionally, herbicides used to control Macartney rose may be a threat to the Texas golden gladecress if applied to or persisting in the soil during the species' period of growth, from late fall through early summer.

A recent, ongoing trend in local land use is the conversion of open pasture to pine plantations. However, densely planted pine trees may degrade the species' habitat due to competition for light and nutrients and by contributing masses of leaf litter onto formerly sparsely vegetated glades.

Finally, the information regarding climate change is not yet specific enough for us to determine the potential long-term effects to the Texas golden gladecress's habitat. However, long-term drought has negatively affected and will likely continue to negatively affect the reproduction and germination of Texas golden gladecress seeds.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Limited collection of Texas golden gladecress has occurred for scientific purposes; only voucher specimens and several seed collection events are documented. Dr. Elray Nixon collected seed in 1987, and successfully created a new population when he introduced the seed onto an outcrop in Nacogdoches County. TNC collected seed at four sites in 2001, and contributed these seed

collections to Mercer Arboretum, a participating institution in the Center for Plant Conservation, in 2002 (Tiller 2013, pers. comm., p. 1). Mercer maintained some in long-term storage and planted some in germination trials. There are no records of any collections of seeds or other plant materials in the last few years. Because these collections were limited, we do not believe that this activity constitutes a threat to the species. There is no information to suggest that Texas golden gladecress is collected for commercial, recreational, or educational purposes, and we have no reason to believe that this factor will become a threat to the species in the future. Therefore, based on our review of the best available scientific and commercial information, we conclude that collection or overutilization of Texas golden gladecress is not currently a threat to the species, nor do we expect it to become a threat in the future.

C. Disease or Predation

Our review of the best available scientific and commercial information regarding disease in Texas golden gladecress does not indicate that disease or predation are issues for this species. There is no information regarding predation by wildlife on the species. Grazing is ongoing across the range of the Texas golden gladecress and occurs on portions of all extant population sites; however, there is no information to document that cattle eat Texas golden gladecress. No studies have been conducted to investigate the effect of grazing or herbivory specifically on Texas golden gladecress. George (1987, p. 17) studied the herbaceous flora of three Weches outcrops in San Augustine County and saw little grazing within his study plots although cattle were present at all three sites. Therefore, based on our review of the best available scientific and commercial information, we conclude that disease and predation on Texas golden gladecress, including predation associated with grazing, are not currently threats to the species, nor do we expect disease or predation to become a threat in the future.

D. The Inadequacy of Existing Regulatory Mechanisms

Under this factor, we examine whether existing regulatory mechanisms are inadequate to address the threats to the species discussed under the other factors. Section 4(b)(1)(A) of the Act requires the Service to take into account ''those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species. . .''. In relation to Factor D under the Act, we interpret this language to require the Service to consider relevant Federal, State, and tribal laws, regulations, and other such mechanisms that may minimize any of the threats we describe in threat analyses under the other four factors, or otherwise enhance conservation of the species. We give strongest weight to statutes and their implementing regulations and to management direction that stems from those laws and regulations. An example would be State governmental actions enforced under a State statute or constitution, or Federal action under statute.

Having evaluated the significance of the threat as mitigated by any such conservation efforts, we analyze under Factor D the extent to which existing regulatory mechanisms are inadequate to address the specific threats to the species. Regulatory mechanisms, if they exist, may reduce or eliminate the impacts from one or more identified threats. In this section, we review existing State and Federal regulatory mechanisms to determine whether they effectively reduce or remove threats to the Texas golden gladecress.

The greatest threats to the Texas golden gladecress include loss of habitat and the plants themselves due to actions that remove the substrate under the populations or that cover them up. These types of actions have been associated with quarrying of glauconite; construction related to natural gas and oil exploration and production; conversion of native glades or pastures with glades and outcrops to other land uses, most recently planting to pine plantations; installation of service lines; and potentially herbicide applications for purposes of controlling the invasive Macartney rose.

Existing State and Federal regulations that might help conserve rare species on SH ROWs, including avoidance or minimization of habitat destruction, as well as regulations that would protect plants from herbicide applications, are requirements only for already listed species; therefore, these regulations do not apply to Texas golden gladecress. Of the two Texas golden gladecress populations that occur in ROWs, the federally listed white bladderpod is only found at one site (Caney Creek Glade Site 1). Although the Texas golden gladecress plants at the Caney Creek Glade Site 1 do extend into the TXDOT-maintained ROW, the majority of the plants are on the adjacent private land, so any protections offered by the State would apply to very few of the plants. Likewise, no existing regulations protect the species on privately owned land, where most of the remnant Texas golden gladecress is found.

Currently, Texas golden gladecress is not protected by State or Federal laws. All of the populations occur on private property even though portions of those populations extend onto SH ROWs; the ROW portions of these populations are miniscule. As such, the existing regulatory mechanisms are inadequate to address the threats to the species.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Small Population Size

The Texas golden gladecress remains in only three small populations. Small populations can be prone to extirpation, especially if a series of drought years greatly reduces seed production and depletes the soil seed bank. The Service (1992, p. 8) noted that for a species like the white bladderpod, with only small populations and wide natural annual fluctuations in plant numbers, as well as fragmented habitat across its range, recolonization after a population loss would require long-distance seed dispersal. Although we have no information regarding the Texas golden gladecress's seed dispersal patterns or distances, we do know that the Texas golden gladecress's habitat is exceedingly fragmented, with fewer and smaller known populations than the bladderpod, and farther distances between populations. This makes the prospects for recolonization after a potential loss of a Texas golden gladecress population very remote.

Small populations can also be prone to extirpation from a single adverse natural or manmade event. The population at the Chapel Hill site is a good example of this vulnerability. Carr (2005, p. 2) reported that Texas golden gladecress habitat was extremely limited at Chapel Hill and that the numbers of Texas golden gladecress plants would also always be restricted by the small size of the available habitat. He concluded that the population was so small that a single adverse event could extirpate the species from this location. The small population size and the small number of extant populations of Texas golden gladecress increases each population's vulnerability to the threats that have significant impacts described under Factor A. Low numbers of plants, confined to very small areas, can be totally eradicated by actions such as installation of pipelines; excavation of mines; or construction of well pads, roads, or other types of construction. The remaining Texas golden gladecress occurrences are so small that they can fall completely within the footprint of one well pad, or even within the width of a pipeline excavation. Small

population size also increases the risk of total loss of populations due to contact with herbicides or shading and leaf litter accumulation from pine tree plantings because these threats are likely to affect the entirety of any given occurrence. Sustained drought may reduce the reproductive effort of a population, and this can lead to an overall decrease in fitness for the remaining populations. Reduced reproductive effort affects the seed bank, which represents the reproductive capacity of each Texas golden gladecress population. The combined effects of drought, impacts from oil and gas development, herbicide treatment, shading, and competition place the remaining three populations at a high risk of extinction, exacerbated by their small population size and narrow distribution.

In addition to increasing vulnerability to direct threats such as pipeline construction, small population size can result in a decrease in genetic diversity due to genetic drift (the random change in genetic variation in each generation) and inbreeding (mating of related individuals) (Antonovics 1976, p. 238; Ellstram and Elam 1993, pp. 218–219). Genetic drift can decrease genetic variation within a population by favoring certain characteristics and, thereby, increasing differences between populations (Ellstram and Elam 1993, pp. 218–219). This increased difference between populations can diminish a species' ability to adapt to the selective pressures of a changing environment (Newman and Pilson 1997, p. 360; Ellstrand 1992, p. 77). Self-fertilization and low dispersal rates can cause low genetic diversity due to inbreeding (Antonovics 1976, p. 238; Barrett and Kohn 1991, p. 21).

Although we do know that Texas golden gladecress exists in small populations in a fragmented landscape, we do not know whether these remaining populations are peripheral to what may have been a historically larger range. Although we might infer inbreeding is occurring in gladecress based on the species' isolated occurrences and ability to self-fertilize, the best scientific and commercial data available do not describe genetic diversity exhibited by the species.

Summary of Factor E

Texas golden gladecress is a historically rare species with some adaptations, such as a mixed mating system, that help to alleviate part of the inherent risks of small population size. The continued existence of Texas golden gladecress is negatively impacted by natural factors including being limited to only a few remaining populations that contain very small numbers of individual plants with a distribution restricted to extremely small areas of outcrop. The species' current, reduced occurrences across a range that has been highly fragmented by past and ongoing human activities increase its vulnerability. With only three remaining populations, loss of an entire population could be catastrophic for this species' long-term viability. Therefore, based on our review of the best available scientific and commercial information, we conclude that the small number of remaining populations, all of which are small in size, in conjunction with the threats described under Factor A, constitutes a threat to the species and greatly exacerbates other the threats we identify above for this species.

Conservation Efforts To Reduce Other Natural or Manmade Factors Affecting Its Continued Existence

We have several examples of voluntary conservation efforts that are currently underway, or which took place in the past, that directly, or indirectly, assist the Texas golden gladecress by addressing the impacts of habitat loss and degradation, or low population and individual plant numbers. See description under the Factor A analysis, above.

Cumulative Effects From Factors A Through E

As described above under Factor E, Texas golden gladecress's small population size and the small number of extant populations increase each population's vulnerability to the significant threats described under Factor A. Small numbers of plants, confined to very small areas, can be extirpated by actions such as installation of pipelines; excavation of mines; or construction of well pads, roads, or other types of construction. The remaining Texas golden gladecress populations are so small that they can fall completely within the footprint of one well pad, or even within the width of a pipeline excavation. This has been the case for four of the eight Texas golden gladecress populations ever documented; three of these were extirpated due to quarry excavation between the late 1980s and the mid-1990s. The continued threat of extirpation of populations to excavation projects continues, as evidenced by the loss of the fourth population (the introduced population) to a pipeline installation as recently as 2011.

Small population size also increases the risk of total loss of populations due to contact with herbicides or shading and leaf litter accumulation from pine tree plantings because these threats are likely to affect the entirety of any given occurrence. The high incidence of Macartney rose invasion within the Texas golden gladecress's range could increase the species' likelihood of exposure to herbicides associated with Macartney rose-control projects.

The overgrowth of many glade habitats by woody shrubs, particularly Macartney rose and Chinese privet, within the range of Texas golden gladecress also puts these few small populations at an increased risk of genetic isolation if the plant is forced into dormancy by hostile conditions on the glade. Sustained drought could also reduce the reproductive effort of a population, and this can lead to an overall decrease in fitness for the remaining populations. Reduced reproductive effort affects the seed bank, which represents the reproductive capacity of each Texas golden gladecress population.

The combined effects of drought, impacts from oil and gas development or other excavations, herbicide treatment, shading, and competition place the remaining three populations at a high extinction risk, and this is exacerbated by their small population size and very restricted geographic distribution.

Determination

Standard for Review

Section 4 of the Act, and its implementing regulations at 50 CFR part 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(b)(1)(A), the Secretary is to make endangered or threatened determinations required by subsection 4(a)(1) solely on the basis of the best scientific and commercial data available to her after conducting a review of the status of the species and after taking into account conservation efforts by States or foreign nations. The standards for determining whether a species is endangered or threatened are provided in section 3 of the Act. An endangered species is any species that is ''in danger of extinction throughout all or a significant portion of its range.'' A threatened species is any species that is ''likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' Per section 4(a)(1) of the Act, in reviewing the status of the species to determine if it meets the definition of endangered or threatened, we determine whether any species is an endangered species or a threatened species because

of any of the following five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence.

Listing Status Determination

Based on our review of the best available scientific and commercial data, we conclude that the Texas golden gladecress is currently in danger of extinction throughout all of its range and, therefore, meets the definition of an endangered species. This finding, explained below, is based on our conclusions that the severity of threats is high and occurs throughout the range of the species. The Texas golden gladecress has demonstrated some ability to survive certain events (dozing and drought) likely due to persistent seed bank and some ability to tolerate small population sizes likely due to self-fertilization. However, it shows little to no ability to survive or tolerate other impacts (quarry mining and pipelines). Further, although somewhat able to persist in the face of past naturally occurring stochastic events, the species is currently highly vulnerable due to the limited distribution of populations across its range and to the specific habitat requirements needed to support the species. We find that the Texas golden gladecress is at an elevated risk of extinction now, and there is no information to suggest that the species' status will improve without significant conservation intervention. We, therefore, find that the Texas golden gladecress meets the definition of an endangered species under the Act.

On the basis of our biological review documented in this final rule to list the Texas golden gladecress, we find the species is vulnerable to population extirpations due to its specialized habitat requirements; restricted geographic distribution; moisture regime requirements; small, isolated populations; and few remaining populations (Factors A and E). The species is endemic to Weches glade habitat, which is scattered or patchy across the landscape. Its historic range does not extend farther than approximately 12 miles (19 km) from the most southeastern to the most northwestern documented locations, and all occurrences were located within a 3.1-mile-wide (5-km-wide) band around SH 21. The extant populations exhibit a high degree of isolation, being separated from each other by distances of 4.5 mi (7.2 km) and 7 mi (11.3 km), respectively, between the northern (Caney Creek Glade Site 1), central (Chapel Hill), and southern (Geneva) populations. All three extant populations are small in terms of areal extent and number of individual plants. The remaining three sites cover less than 1.2 ac (0.5 ha). The loss of any of the known populations further reduces the ability of the species as a whole to withstand additional threats.

The remaining small, isolated Texas golden gladecress populations are particularly susceptible to extirpation from habitat loss and degradation (Factor A). The main sources of habitat loss and degradation include construction of glauconite mines, construction of pipelines, and invasive woody plants. Glauconite mines and pipelines remove the habitat and the overlying Texas golden gladecress plants, which eliminates the entire glade or alters hydrology of glades nearby; allow the invasion of the open, sunny glade habitats by native and nonnative woody and weedy species; and can prompt the planting of pine trees in close proximity to occupied glades, which reduces sunlight and increases leaf litter. Drought decreases seed production. Successive years of drought could lead to further declines in the numbers of plants, or perhaps total loss of Texas golden gladecress populations, if no growth or reproduction occurs over this extended time period, a circumstance that could be exacerbated by climate change.

In addition to the individual sources of habitat loss and degradation under Factor A, and small, isolated populations under Factor E, the cumulative effects of the multiple stressors are acting on populations such that the effects on the Texas golden gladecress, as well as the immediacy of these threats, are significant throughout the species' entire current range. The small and limited number of remaining populations act in concert with the threats under Factor A and E. These factors pose imminent threats to the species because they are ongoing. The current conditions of small and isolated populations reduce the ability of any given Texas golden gladecress population to endure such adverse events, and natural recolonization following local extirpations is considered unlikely in most cases.

We evaluated whether the Texas golden gladecress is in danger of extinction now (i.e., an endangered species) or is likely to become in danger of extinction in the foreseeable future (i.e., a threatened species). The foreseeable future refers to the extent to which the Secretary of the Interior can reasonably rely on predictions about the future in making determinations about the future conservation status of the species. A key statutory difference between an endangered species and a threatened species is the timing of when a species may be in danger of extinction either now (endangered species) or in the foreseeable future (threatened species).

Because of the fact-specific nature of listing determinations, there is no single metric for determining if a species is ''in danger of extinction'' now. In the case of the Texas golden gladecress, the best available information indicates that, while a major range reduction (that is the overall geographic extent of the species' occurrences) has not happened, habitat destruction has resulted in significant loss of populations and reductions in total numbers of individuals. These losses are ongoing, as at least one population was lost due to a pipeline installation within the last 3 years and three populations were lost between 1994 and 2011 due to quarry mining. Because the types of human activities that have contributed to the losses of Texas golden gladecress populations are continuing to occur across the species' range, we anticipate that future losses of the remaining populations are likely to occur. Additionally, degradation of the species' habitat across its entire range is continuing as woody and weedy plants overrun glade sites. Further, an increase in the number and duration of drought events is projected to continue. Without substantial conservation efforts, this trend of population loss is expected to continue and result in an elevated risk of extinction of the species. The narrow endemism of the species, with its small geographic range, increases the risk for the species that stochastic events (e.g., drought) will affect all known extant populations, putting the Texas golden gladecress at a high risk of extinction.

Under the Act and our implementing regulations, a species may warrant listing if it is endangered or threatened throughout all or a significant portion of its range. The threats to the survival of this species occur throughout its range and are not restricted to any particular significant portion of its range. Accordingly, our assessments and determinations apply to this species throughout its entire range.

In conclusion, as described above, the Texas golden gladecress has experienced significant reductions in population numbers (based on habitat loss and degradation). The Texas golden gladecress is especially vulnerable to impacts due to its life history and

ecology. The species is also subject to significant current and ongoing threats. After a review of the best available scientific information as it relates to the status of the species and the five listing factors, we find the Texas golden gladecress is in danger of extinction now. Therefore, on the basis of the best available scientific and commercial information, we are listing the Texas golden gladecress as an endangered species, in accordance with section 3(6) of the Act. We find that a threatened species status is not appropriate for the Texas golden gladecress because the threats to the species are occurring now and are expected to continue into the future such that overall risk of extinction is high at this time.

Neches River Rose-mallow

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Neches River rose-mallow is a nonwoody, flowering perennial found within seasonally or regularly inundated sloughs, oxbows, terraces, sand bars, and bottomlands. The Neches River rose-mallow is endemic to relatively open habitat with hydric alluvial soils (water-saturated soils). Sites are found within the Neches, Sabine, and Angelina River basins and the Mud and Tantabogue Creek basins of five counties within east Texas.

Nonnative Species

Nonnative plant species are a constant threat to native flora throughout the Gulf coast prairies of Texas and Louisiana (McCormick 2005, p. 23). A primary threat to the Neches River rose-mallow is the ongoing encroachment of nonnative and native woody species into its generally open, intermittent or perennial wetlands. We considered the potential threat from three nonnative species, Chinese tallow, coastal bermudagrass, and bahiagrass (Miller 2011, pers. comm.). Based on the best scientific and commercial data available, the Chinese tallow is an ongoing threat to the Neches River rose-mallow, but coastal bermudagrass and bahiagrass are not threats at this time.

Chinese tallow was introduced to the United States in the 1700s from China (McCormick 2005, pp. 7, 8). With the ability to reproduce quickly, reach reproductive maturity in as little as 3 years, and remain reproductively mature for at least 60 years (United States Geological Survey (USGS), 2000, p. 2) to 100 years (Gan *et al.* 2009, p. 1346), Chinese tallow can produce an abundance of seed annually (Potts 1946, p. 375; Conway *et al.* 2000, pp. 268–269). Chinese tallow tolerates a range of habitat conditions, including full sunlight and shade, and both flooding and drought-stricken habitats (USGS 2000, p. 1). These features allow Chinese tallow to dominate certain habitats. Butterfield *et al.* (2004, p. 338) also found that Chinese tallow grew faster than native species found within the Neches River rose-mallow habitat, such as loblolly pine, water tupelo (*Nyssa aquatica*), blackgum (*N. sylvatica*), and sweetgum, which occur in both perennially and intermittently wet habitats. Without management, the Chinese tallow has the ability to shade out, out-grow, and limit water and nutrient absorption to Neches River rose-mallow and its native vegetative associated species.

While there are methods to control Chinese tallow, these methods are labor intensive, expensive, and limited in their effectiveness. Burning, mechanical, and chemical (herbicide) means can be used to control Chinese tallow; however, prescribed fire has produced complex and highly variable results in Chinese tallow and may not be an effective management tool (Grace 1998, entire; Grace 2011, pers. comm.). The Davy Crockett NF is establishing a regular burn cycle of 3–4 years for all compartments containing the Neches River rose-mallow to control Chinese tallow and to mimic the historical fire regimes of the Coastal Plain (Landers *et al.* 1990, p. 136). The Davy Crockett NF Revised Land and Resource Management Plan for National Forests and Grasslands in Texas (specific to the streamside Management Area 4 where the Neches rose-mallow occurs) allows for mechanical means and prescribed fire to maintain the native plant community but prohibits the use of chemical agents (herbicides) unless applied by hand or through nonaqueous form within 100 feet (30.5 m) of the Neches River rose-mallow (United States Department of Agriculture 1996, p. 154). Despite the available management actions, Chinese tallow remains at all USFS sites. Current mowing activities along ROWs may abate some growth of Chinese tallow, but management actions on these sites should also be evaluated for their effectiveness. Chemical methods are not being used to control Chinese tallow.

The invasion from nonnative Chinese tallow tree has historically been a threat to the Neches River rose-mallow and continues to be a threat. Chinese tallow occurs at all Neches River rose-mallow sites (Miller 2011, pers. comm.) at varying densities and was found to be most prevalent at SH 94 and compartment 16, Davy Crockett NF, respectively (Walker 2012, p. 2). Without active or effective management, Chinese tallow can reproduce quickly, out-shading Neches River rose-mallow and other native woody vegetation and limiting its water and nutrient absorption. Only select sites are being actively managed for Chinese tallow, but the species has not been successfully eradicated at any of the sites. This threat has led to declines at all Neches River rose-mallow sites. Therefore, based on the best scientific and commercial data available on this invasive, we conclude that invasion from Chinese tallow is a threat across the species' range.

Coastal bermudagrass is not typically found within the wetland habitats that the Neches River rose-mallow prefers, but three sites have persisting stands of coastal bermudagrass: The Texas Land Conservancy site, SH 204 ROW (Walker 2012, pers. comm.), and SH 94 or Boggy Slough (Allen 2011a, pers. comm.). Site visits to east Texas that included these three sites in August 2012, did not exhibit reduced numbers of Neches River rose-mallow due to coastal bermudagrass. Bahiagrass has not been found at any Neches River rose-mallow sites.

Coastal bermudagrass is an introduced bermudagrass cultivar that has been widely planted in the southern United States for livestock forage. It is adapted to a wide range of soil types and climates and tolerates both drought and periodic inundation (Burton and Hanna 1985, p. 247), much like the conditions of Neches River rose-mallow habitat. In drier climates, this cultivar will thrive along irrigation ditches and streambeds, agricultural fields, and roadside areas (Burton and Hanna 1985, p. 247).

Due to its hybrid origin, coastal bermudagrass produces very few viable seeds and is established by planting sprigs (rhizomes and stolons) (Stichler and Bade 2012, p. 1); however once established, coastal bermudagrass tends to produce dense monocultures where native species cannot persist. A lack of management, including mowing, could allow coastal bermudagrass to monopolize Neches River rose-mallow habitats such that the bermudagrass would out-compete the rose-mallow for water and nutrients and could out-shade the Neches River rose-mallow. Along ROWs, coastal bermudagrass and bahiagrass are often included in mixtures to re-seed ROWs in east Texas (Adams 2013c, pers. comm.). The wetter, low-lying areas of the ROW where Neches River rose-mallow exists are not generally planted with coastal bermudagrass. TXDOT also mows along

ROWs, potentially diminishing any possible encroachment as coastal bermudagrass and bahiagrass have not been observed to cause declines in any Neches River rose-mallow population.

The threat from coastal bermudagrass and bahiagrass can have potential impacts to native plants. However, only three sites have coastal bermudagrass, and bahiagrass is not present at any of the sites. It does not appear that Neches River rose-mallow has been negatively impacted by either species as of yet or will likely be impacted in the near future. Therefore, based on the best scientific and commercial data available on coastal bermudagrass and bahiagrass, and the lack of any observed impacts to the Neches River rose-mallow, we conclude that they are not threats to the Neches River rose-mallow across its range.

Native Species

Historical and current encroachment from native species has been observed in Neches River rose-mallow habitat. Two species, sweetgum and green ash (*Fraxinus pennsylvanica*), are native, deciduous trees of east Texas that have been found at all Neches River rose-mallow sites (Miller 2011, pers. comm.). Four Neches River rose-mallow populations monitored in 2011 were overgrown with sweetgum and green ash (Miller 2011, pers. comm.; TXNDD 2012a, pp. 1–11, 20–28). About 36 percent (4 of the 11) of the Neches River rose-mallow's populations are impacted by competition and shading from native sweetgum and green ash trees.

Sweetgum is found on a variety of soils but grows best on moist, alluvial clay and sandy loams of river bottoms (Kormanik 2004, p. 790, in Burns and Honkala 1990). Green ash also tolerates a range of soils and in Texas is abundant in clay or silty loams of floodplains (Johnson 1980, in Gucker 2005, p. 15). Both species also grow in full sun to partially shaded habitats. Therefore, both the sweetgum and green ash are well adapted to the hydric alluvial soils and partial to open canopies that the Neches River rose-mallow needs. In the absence of other competing species, sweetgum and green ash can attain large sizes (50–100 feet (15–30 m)) (Dickerson 2002, p. 1) and can reduce the open canopy (Kirkman 1995, pp. 12, 15), thereby shading out Neches River rose-mallow.

Historically, natural fires generally occurred every 1 to 3 years in east Texas (Landers *et al.* 1990, p. 136; Landers 1991, p. 73) and controlled both native and nonnative species. Naturally occurring wildfires or prescribed fires can be used as management tools to limit the abundance of these native tree species. Two of the four sites were on ROWs, and prescribed burning is not a widely accepted method of ROW maintenance. On the other two sites, prescribed burning had not been implemented. The TXDOT mows these ROW sites, but mowing does not appear to be an effective management tool because these sites have both historic and current observations of native species encroachment.

Four of the 11 sites are impacted by native species, the current management techniques are not adequate for control of native species, and effective techniques need to be investigated. Therefore, based on the best scientific and commercial data available, the effects of native encroachment by these species pose an ongoing threat to the Neches River rose-mallow.

Hydrological Changes

Habitat where Neches River rose-mallow is found includes both intermittent and perennial wetlands along oxbows, sloughs, terraces, sand bars, and other low-lying areas in habitats with minimal standing water. Wetlands are ecological communities with hydric (flooded or saturated) soils. Many wetland species, including the Neches River rose-mallow, are adapted to highly variable rates of water flow, including seasonal high and low flows, and occasional floods and droughts. For example, the Neches River rose-mallow likely requires high precipitation and flowing water or flood events to disperse seed (Warnock 1995, p. 20; Scott 1997, p. 8; Reeves 2008, p. 3), and although the Neches River rose-mallow is adapted to persisting in dry conditions during portions of the year, a complete lack of water can diminish seed production, range expansion, and genetic exchange. As Neches River rose-mallow habitat is so water-dependent, hydrological changes can have huge impacts. Some degree of hydrological change has been seen at most of the Neches River rose-mallow sites; however, information on some of the private land sites is lacking.

At the Boggy Slough site, which is connected to the SH 94 site, natural shifts of river and creek beds have left meandering scars and remnant oxbows. However, several levees upstream and the creation of a duck hunting pond on this site have changed the natural landscape and flow patterns, thereby converting seasonally inundated wetlands to permanently flooded wetlands (Miller 2011, pers. comm.). Beaver activity, such as selective cutting and damage to certain tree species, was evident at the Boggy Slough site, but the Neches River rose-mallow did not show impacts.

On another private land site, The Texas Land Conservancy site (referred to as the Lovelady site in Table 4, above), Neches River rose-mallow plants were once observed lining the perimeter of a flatwoods pond. However, after 2003, when a stock pond was constructed (TXNDD 2012a, p. 18) in what was likely part of an overflow channel from Tantabogue Creek, the natural surface hydrology was altered by retaining overflow, preventing it from draining south to the site containing Neches River rose-mallow plants. The Texas Land Conservancy was considered a robust population; however, in 2011, the Service and TPWD botanists only observed 539 Neches River rose-mallow stems, most of which were in relatively poor condition (Miller 2011, pers. comm.).

All four Davy Crockett NF sites (compartments 55, 16, 11, and 20) censused in 2011 were completely dry except for compartment 20, where a small pond to the south drains into the compartment (Miller 2011, pers. comm.). Compartment 16 had altered hydrological changes. In 2000, when the Neches River rose-mallow was introduced into a wetland on this compartment, a beaver dam was present. When the dam broke in 2002, water infiltrated the site, and the original hydrology was altered (TXNDD 2012a, p. 44). Plant numbers decreased from 450 to 43 plants. It is unclear if this decrease in plants was due directly to the loss of the beaver dam; this needs further research. The pine-oak forest on adjacent private land west of compartment 55 helps regulate the amount, timing, and possibly the rate of water flow into the compartment. Therefore, any alteration of the pine forest, through tree removal projects or other habitat-altering activities, could alter key hydrological characteristics of this compartment. However, the likelihood of tree removal projects or habitat alteration activities on adjacent lands is unknown but likely minimal.

Water development and construction projects could also result in the complete loss or inundation of water at sites, threatening the Neches River rose-mallow. In 1978, the Angelina and Neches River Authority (ANRA) proposed the construction of a reservoir known as Lake Columbia (previously known as Eastex), in Cherokee and Smith Counties, Texas (ANRA 2012), to supply water for five surrounding counties (U.S. Army Corps of Engineers (USACE), 2010, pp. 2–4, 3–43). The dam for this reservoir would be constructed on Mud Creek and would impound

approximately 195,500 acre-feet (ac-ft) (241 million cubic meters (mcm)) of water in a reservoir reaching 14 mi (22.5 km) upstream (USACE 2010, p. 1–1). Up to 85,507 ac-ft (1,105 mcm) of water would be diverted from the downstream flow of Mud Creek (USACE 2010, p. 1–1).

According to the most current project plans available in the draft environmental impact statement (EIS), a habitat evaluation procedures analysis (a broad habitat-based approach to assess environmental impacts of proposed water and land resource development projects) stated that it was possible for the Neches River rose-mallow to be in the permit area, if habitat exists; however, the analysis did not document any Neches River rose-mallow in the permitted project area (Walker 2011, pers. comm.; USACE 2010, p. 4–154). The ''Permitted Project Area'' includes the footprint of the normal conservation pool of the reservoir below a certain elevation and the limits of construction in the vicinity of the dam, or a total of approximately 10,655 acres. The ''Downstream Impacts Area'' was also analyzed in the EIS. This area included the existing Mud Creek 100-year floodplain for a distance of approximately 16 miles from below the dam site to the confluence with the Angelina River (USACE 2010, p. 1–4). The extant Neches River rose-mallow population found at the intersection of SH 204 ROW and Mud Creek is within the downstream portion of the project that was analyzed. The SH 204 ROW site is a perennial wetland where plants generally remain inundated year round; therefore, a change in the water level at this site could make it unsuitable for Neches River rose-mallow or could restrict potential seed dispersal mechanisms. Drought conditions could also exacerbate the potential threats from this project, and the reduced downstream water flows could completely extirpate the SH 204 ROW site (USACE 2010, p. 4–154; Heger 2012, pers. comm.).

Using the best scientific and commercial data available, we anticipate that the construction of the Lake Columbia reservoir project will divert water downstream, thereby likely dewatering the SH 204 ROW site. The agencies involved with the project are still working on solidifying the project details, and, therefore, we do not know how much water will remain at this site or if future water management practices or decisions will allow for seasonal flooding of water to this site.

Optimal habitat conditions for Neches River rose-mallow include intermittent or perennial wetlands that can be variable throughout the year, often becoming surficially dry during the summer and wet during the winter, perhaps being exposed to water year-round. However, hydrological changes that result in the complete loss or inundation of water at the site threaten the Neches River rose-mallow. Neches River rose-mallow, despite its name, is not found in deeper waters, unlike other *Hibiscus* species, and the Neches River rose-mallow is thought to need water at some point of its life cycle for seed dispersal. A complete loss of water at any or all of the sites could restrict the exchange of genetic material between and among sites, thereby compromising the species' genetic integrity.

Although the severity of impacts from beaver dams to the Neches River rose-mallow could be high, the level of exposure to this stressor is low. Consequently, we do not consider beaver dams a threat at this time. However, the severity of altered hydrology as a whole is high and the exposure of this threat is present throughout the species' range. Consequently, we have determined that altered hydrology is a threat now and will continue to be a threat in the near-future.

Upgrades and Construction for ROWs, Roads, Bridges, and Other Structures

Right-of-way populations are vulnerable to bridge and road expansion, new road construction, and upgrade projects. These activities could impact the sites' hydrology, soil stability, wetland and riparian vegetation, and water quality. Hydrological changes, erosion, and changes in the associated native vegetation due to ROW and road upgrades and construction projects are threats to the species (as described in detail in the ''Nonnative Species,'' ''Native Species,'' and ''Hydrological Changes'' sections, above). We do not have information on how sedimentation and changes in water quality could impact Neches River rose-mallow; however, increased siltation within the water column is the major pollutant of wetlands in the United States (Baker 1992; USEPA 1995).

In 2005, a proposed bridge replacement on SH 230 ROW would have altered approximately 4.91 ac (2 ha) of Neches River rose-mallow habitat south of the ROW and 0.07 ac (0.03 ha) north of the ROW (Adams 2005, p. 1), but the TXDOT implemented avoidance measures. Bridge replacement and road expansion projects are continuing along SH 94 ROW, but as of 2011, had not progressed into Neches River rose-mallow habitats (Adams 2011c, pers. comm.). For this project, TXDOT is using temporary culverts and silt fencing to reduce sedimentation, and the Neches River rose-mallow site has been fenced off to prevent access. Regardless of these minimization techniques, sedimentation was evident along SH 94 ROW (Walker 2012, p. 2).

Potential road projects are mainly restricted to ROW easements and may potentially impact three of the 11 extant populations. Roadwork along SH 230 is occurring, and based on communication with the TXDOT, there will likely be only one project in road ROWs within the Neches River rose-mallow sites. These activities are currently being implemented or will be in the near future. As a result, the impacts to Neches River rose-mallow could be high, as an entire population could be removed as a result of these activities. Consequently, we conclude that SH ROW maintenance, bridge maintenance, and other structural projects are a threat to Neches River rose-mallow populations now and will continue to be a threat into the future.

Silviculture

Pine plantations in east Texas are established mainly on uplands that are managed to mimic old fields or grassy savannas (Fox *et al.* 2007, p. 340). Site preparation may include anchor chaining, chopping, burning, root raking, shearing, and disking (Balmer and Little 1978, p. 60). One Neches River rose-mallow population on private property south of SH 230 was extirpated when the site was converted to a pine plantation sometime after 2003 (Poole 2011b, pers. comm.; TXNDD 2012a, pp. 61–67). Three additional sites in or near Neches River rose-mallow populations have shown evidence of habitat-clearing activities to prepare land for harvesting trees, including: Adjacent land south of the Davy Crockett NF compartment 55, Houston County; an extirpated site located south of the extant Lovelady site, Houston County; and the privately owned site at Champion, Trinity County.

Although silviculture impacts have occurred in the past, the likelihood that silviculture activities (including land-clearing activities and actual planting of trees) will occur in the near future is very low on the occupied units, including the three ROW sites and on the four USFS sites. In addition, the wetland habitat does not necessarily exclude silviculture from occurring on sites, but wetlands are not usually considered the best sites for pine planting. Therefore, we conclude that silviculture activities are currently not a threat to the Neches River rose-mallow.

Herbicide Use

Herbicide treatments are increasingly popular because they remove unwanted plant growth without causing soil erosion from the site; however, herbicide use increases incidents of water pollution and aerial drift to nontarget sites (Balmer and Little 1978, p. 63). There have been several instances where herbicide impacts to Neches River rose-mallow plants on ROWs and on privately owned lands have been documented. Neches River rose-mallow populations may also be potentially impacted by herbicides applied to pine plantations that drift into the Neches River rose-mallow habitat. Normal rainfall and flood events can unintentionally disperse herbicides downstream, impacting individual plants or whole populations, depending on the nature of the herbicide.

Three subpopulations in Trinity County along SH 230 experienced impacts from herbicide spraying. One subpopulation with approximately 50 plants, on private property south of SH 230, was extirpated by herbicide use (Service 2010b, p. 7). Herbicide drift at a second subpopulation along SH 230 (Gordon 2009, pp. 3–4) caused the ROW population to decline from 14 plants in 1999 (Poole 2001, p. 2) to zero plants in 2002 (Miller 2011, pers. comm.). Herbicide damage was evident at a third subpopulation along SH 230 ROW, and could have been the result of herbicide use by the private landowner south of SH 230 (what is now planted in pine), but this has not been confirmed. In 2012, a graduate student from Stephen F. Austin State University noted Neches River rose-mallow at this site, but this needs to be confirmed.

The TXDOT used herbicides to remove woody vegetation from ROWs in the past (Miller 2005, pers. comm., in Service 2006, p. 7; Adams 2011c, pers. comm.), but mechanical clearing methods have largely replaced the use of herbicides in these ROW areas. Impacts from herbicide applications to Neches River rose-mallow have not been documented at any of the four USFS compartments. The USFS Revised Land and Resource Management Plan for National Forests and Grasslands in Texas restricts the use of nonaquatic herbicides unless hand-applied (United States Department of Agriculture 1996, p. 153).

Exposure to herbicides, in conjunction with silviculture activities, is a threat to the Neches River rose-mallow, as it has impacted seven of the 11 populations (64 percent). While the majority of Neches River rose-mallow populations are on State or Federal land, all are adjacent to private lands. Even though the State and the USFS do not actively use herbicides, private landowners do. Consequently, herbicide overspray from private land could impact all existing Neches River rose-mallow populations. The severity of herbicide use effects to the Neches River rose-mallow, in combination with silviculture practices, is high, as seven of the 11 populations have been impacted by these activities. These activities are current and ongoing threats. Consequently, exposure to herbicides is a current and near future threat to the Neches River rose-mallow.

Trampling and Herbivory by Feral Hogs and Cattle

Feral hogs (*Sus scrofa*) were first introduced to the mainland of North America (Wood and Barrett 1979, pp. 237, 238) in Texas in 1542, although large-scale introductions did not occur until the 1930s (Isle and Hellgren 1995, p. 793). While these omnivores dig in the soil in search of roots, tubers, and invertebrates, they can inadvertently cause damage to other food resources and habitat. Feral hogs forage by turning over soil with their snouts, creating mounds and depressions (Arrington *et al.* 1999, p. 535). Hogs transition from foraging in oak stands during winter months, to foraging in swamp and marsh edges during the summer months to feed on grasses, sedges, tubers, and roots (Wood and Roark 1980, pp. 507–509). Feral hogs are able to travel long distances to feed, and often uproot vast areas of habitat. Feral hogs reach sexual maturity at 6 to 8 months (Wood and Barrett 1979, p. 242), and have large litter sizes. However, uprooting of Neches River rose-mallow has not been observed (Creech 2011a, pers. comm.; Miller 2011, pers. comm.).

There are both historic and current records of damage to Neches River rose-mallow habitat from feral hogs. Damage of habitat by feral hogs has historically been recorded at Mill Creek Gardens (Creech 2011a, pers. comm.; Miller 2011, pers. comm.) and on all four Davy Crockett NF sites. Until 2012, only tracks and damage to habitat have been the most noted type of destruction; however, current damage to Neches River rose-mallow plants was observed in compartments 16 and 20 of the Davy Crockett NF, where feral hogs had broken and flattened plants (Walker 2012, pers. comm.). Large groups of feral hogs were observed in Neches River rose-mallow sites within compartments 55 and 16 of the Davy Crockett NF (Walker 2012, pers. comm.). Habitat damage is rangewide, and although Neches River rose-mallow may not the primary target during foraging activity, plants have been damaged.

Although the Neches River rose-mallow grows adjacent to permanent standing water or may occur within infrequently flooded areas, this does not limit the access of feral hogs. Further, drought may enhance accessibility to Neches River rose-mallow sites, thus increasing their susceptibility to trampling by feral hogs. Unmanaged feral hog populations can lead to increased soil disturbance and impacts to the native vegetative community, which could create prime conditions for nonnative species to invade. Current feral hog damage has been documented at four of the 11 Neches River rose-mallow sites. Feral hogs are a present threat and will likely continue to be a threat in the near future. However, at this time the severity of impacts to the Neches River rose-mallow is low.

It is estimated that livestock grazing has damaged 80 percent of stream and riparian ecosystems in the southern United States (Belsky *et al.* 1999, p. 419). The damage includes increased sedimentation, decreased water quality, and trampling and overgrazed stream banks where succulent (high water content) forage exists (Armour *et al.* 1994, p. 10; Fleischner 1994, p. 631; Belsky *et al.* 1999, p. 419). Trampling causes soil compaction and damage to both above- and below-ground vegetative plant structures and increases soil erosion (Warren *et al.* 1986, p. 491).

Livestock owned by a neighboring landowner were observed on The Texas Land Conservancy's Lovelady site in 2011. The Neches River rose-mallow at the Lovelady site suffered severe documented herbivory where stems had been eaten almost to the ground (TXNDD 2012a). The Texas Land Conservancy has attempted to exclude these livestock, and has proposed constructing an exclusion fence around the current location of the Neches River rose-mallow population; however, funding has not been secured (Dietz 2011, pers. comm.). The Neches River rose-mallow at Lovelady is concentrated along a low area leading into a stock pond (Miller 2011, pers. comm.). Only one of 11 sites (9 percent of the total known population) has shown damage from cattle herbivory. Trampling has not been observed at the Lovelady site or any other. Drought could exacerbate herbivory, as was seen in the severe drought of 2011, which could lead to an increase in trampling. The immediacy and severity of herbivory to the Neches River rose-mallow is high, but the exposure to herbivory is low. Therefore, we conclude that herbivory is not a

threat to to the Neches River rose-mallow.

Natural Gas Pipelines and Well Activity

The Haynesville or Bossier and Eagle Ford Shale formations in east Texas are currently being developed for oil and natural gas production. The Texas Railroad Commission regulates the oil and natural gas industry in the State of Texas and maintains a database with proposed activities. Several of the counties with known populations of Neches River rose-mallow, including Houston, Trinity, Nacogdoches, and Cherokee Counties, may be subject to increased oil and natural gas exploration in the future (Texas Railroad Commission 2012). However, oil and gas exploration was not observed on or directly adjacent to any of the Neches River rose-mallow populations that the Service observed in 2011, and currently there are no proposals near extant Neches River rose-mallow populations. Therefore, we determine that oil and natural gas exploration activities are not currently a threat to the Neches River rose-mallow.

Climate Change

We discuss the topic of climate change in greater detail under ''*A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range*'' for the Texas golden gladecress (which, like the Neches River rose-mallow, is also found in east Texas). In summary, the consensus of climate models predicts that the climate in east Texas will become warmer and will experience both more frequent droughts and more extreme precipitation events. Diggs *et al.* (2006, p. 80) states that climate extremes, particularly drought and low temperatures, have greater influence than average conditions do on excluding nonadapted species. Extreme precipitation events (such as tropical storms) may adversely affect the Neches River rose-mallow by altering flow regimes and by temporarily increasing the depth of its wetland habitat to a level at which the species cannot survive. A warmer climate with more precipitation extremes may also increase competition from native and nonnative invasive plant species (Service 2010b, p. 8). The timing of precipitation is also crucial for the Neches River rose-mallow, as seed dispersal is likely dependent on flowing water.

Neches River rose-mallow has shown evidence of damage from drought conditions. In October 2011, all Neches River rose-mallow populations and habitats showed evidence of damage from the previous 3 years of drought, including changes in leaf morphology, dead plants at specific sites, reduced seed production, and lower water levels in perennial wetlands. In addition, one site (The Texas Land Conservancy site) showed evidence of herbivory by livestock. The survival of Neches River rose-mallow populations during previous drought cycles may have been aided by its greater abundance and by greater habitat contiguity. Loss of habitat contiguity impedes the recolonization of sites from neighboring seed sources following a catastrophic loss, such as from drought. More frequent droughts will further exasperate these impacts to the Neches River rose-mallow.

With climate change projections of warmer and more frequent droughts, and more extreme precipitation events, impacts to the Neches River rose-mallow will continue. The severity of impacts to the Neches River rose-mallow is high, as all populations will be impacted. Further, this threat is current and will continue into the near future.

Other Conservation Efforts

Three populations of the Neches River rose-mallow exist along SH ROWs in Houston, Trinity, and Cherokee Counties. The TXDOT and TPWD currently operate under a revised 1988 memorandum of understanding (MOU) that governs management actions targeting conservation of listed species and key habitats on SH ROWs that may potentially affect natural resources within facilities owned or managed by TPWD. Because the Neches River rose-mallow was not a listed species, the MOU relates to protection of Neches River rose-mallow habitat if the proposed projects include the following: Contains 1.0 ac (0.54 ha) of new ROW within floodplains or creek drainages; requires channel modifications to streams, rivers, or water bodies; and requires realignment of channels with mature woody vegetation; or projects that may impact mature woody or native vegetation (Texas Administrative Code 1999, p. 4). Although a formal mechanism via the MOU has been established to review projects and alleviate or eliminate threats to Federal and State-listed species and key resources, there have not been any projects that fit these standards that have been recently reviewed under the MOU.

Five populations, including a portion of the SH 94 site, are located on private lands. Historically, two candidate conservation agreements were formed between the Service and Champion International (Champion) in 1998, and with Temple-Inland Forest Products (Temple-Inland) in 2002, to conserve the Neches River rose-mallow on both sites. The candidate conservation agreements have expired, and private landowners are not restricted by guidelines outlined those agreements. Champion's 5-year candidate conservation agreement included 40 ac (16.2 ha) of wetland and was located east of White Rock Creek in Trinity County (Champion site in Table 4). Management guidelines included: Maintain 100-ft (30-m) buffer around occupied and dispersal habitat, free from timber harvesting, site preparation, and reforestation activities; minimize hydrological alterations; inhibit filling or pilling debris or material on populations; and apply herbicides only by hand and at times of little or no wind (Service 1998, p. 4). The Champion property was sold to Temple-Inland in 2001, and in 2004, the candidate conservation agreement expired (Service 2010b, p. 9). The Temple-Inland candidate conservation agreement covered an area that has a 20-ac (8.1-ha) wetland with Neches River rose-mallow (Boggy Slough site in Table 4); the plants declined due to drought and alteration of an onsite wetland. A smaller wetland with Neches River rose-mallow plants was drained in order to regulate water levels of the larger wetland, which was to be used by Temple-Inland for recreational hunting (Service 2002, p. 3; Service 2010b, p. 9). The Temple-Inland candidate conservation agreement was valid from 2002–2004. Contact was made with the owners, and the Service and TPWD visited the site in October 2011. Plants appeared healthy, but nonnative and native species encroachment into Neches River rose-mallow habitat was observed (Miller 2011, pers. comm.).

Four known sites lie within the Davy Crockett NF, which is managed under the Revised Land and Resource Management Plan. The USFS considers the Neches River rose-mallow a sensitive species. Actions occurring on USFS property must not result in a net loss of species viability or create significant trends toward the need for Federal listing. However, USFS standards and guidelines in the plan are not mandatory and do not address all threats pertaining to the Neches River rose-mallow.

The Lovelady site is owned by The Texas Land Conservancy, once known as the Natural Area Preservation Association. Thirty acres (12 ha) of land were purchased in 2004, located north of SH 230 (The Texas Land Conservancy 2011). Purchase of this easement on

private land was specifically for the conservation of the Neches River rose-mallow; however, plants occur on private land, and they are not offered protection under the Act unless there is a Federal nexus. However, The Texas Land Conservancy had initiated a voluntary effort to construct a cattle-exclusion fence, but funds were lacking and the project was not completed (Dietz 2011, pers. comm.). The introduced site at Mill Creek Gardens was created in 1995, as a conservation easement by a private donor (Stephen F. Austin State University 1999, p. 1), and was used as an experimental plot to test fertilizer and mulching effects on the Neches River rose-mallow (Scott 1997, pp. 6–7). This site is informally managed through mowing and burning regimes prescribed by Stephen F. Austin State University staff, but encroachment from native woody species has been observed in the past (Creech 2011c, pers. comm.). The Neches River rose-mallow was last observed in 1980 at the Harrison County site and the site has not been revisted since then due to a lack of accessibility. The Neches River rose-mallow was last observed at the Camp Olympia site in 1978. The site has been revisited in 1992 and 1993, but has not been observed (Warnock 1995, pp. 6, 8; TXNDD 2012a, pp. 58–60). Introductions onto Mill Creek Gardens and the Pineywoods Native Plant Center on the Stephen F. Austin State University campus have provided researchers the opportunities to study the species, including its affinity for hybridization. Seed has also been collected by the Mercer Arboretum in Ft. Collins, Colorado.

Summary of Factor A

Based on our evaluation of the best available scientific and commercial data, we conclude that the present loss and modification of the Neches River rose-mallow's habitat is a threat that has significant impacts to the species' continued survival. Threats include competition for light and nutrients by native and nonnative invasive plant species, altered hydrology, herbicide drift, and trampling by feral hogs. These threats may be exacerbated by future road and bridge construction and maintenance projects. We determine that livestock grazing is not a threat to the species. Although silvicultural practices have caused some prior impacts to the species, we do not anticipate that silviculture activities will continue to be a threat. The activities related to exploration and development of oil and natural gas wells are not currently a threat to the species. Effects of climate change may be exacerbated by effects from other threats. Additional conservation measures that had protected habitat and certain actions on privately owned land have expired and no longer provide protection to habitat of the Neches River rose-mallow. Therefore, we conclude that habitat loss, destruction, and modification is a threat to the Neches River rose-mallow rangewide both now and in the future.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The showy flowers produced by the genus *Hibiscus* make it of high horticultural interest (Service 2010b, p. 8) to *Hibiscus* enthusiasts (Warnock 1995, p. 25; Poole *et al.* 2007, p. 265). Hybridization within genus *Hibiscus* is repeatedly done in the nursery trade (Creech 2011a, pers. comm.) to produce different colored flowers and modify other traits that may be of commercial interest. Ornamental landscaping companies sell Neches River rose-mallow plants online (Creech 2011a, pers. comm.). Neches River rose-mallow plants are easy to cultivate from cuttings, and having plants available for sale in the nursery trade reduces collecting pressures of the species from the wild (Creech 2011a, pers. comm.). Plantings of Neches River rose-mallow into garden settings are standard, and placement within close proximity to wild populations has not been recorded or observed.

Mercer Arboretum collected seed in 1993, 1994, 1996, 1997, and 2003; these seeds, as well as living plants, are being maintained at the Mercer Arboretum (Tiller 2011, pers. comm.). A portion of the seeds collected were grown out in the Mercer Arboretum Rare and Endangered Gardens, where they have remained; seeds and plants have not been transplanted back into the wild populations (Tiller 2011, pers. comm.). Neches River rose-mallow seed was also sent to the National Seed Storage Laboratory in Fort Collins, Colorado, for long-term storage for conservation purposes (Ellis 2011, pers. comm.).

The scientific and horticultural communities have collected Neches River rose-mallow seeds and plants from wild populations; however, we have no evidence that suggests that collection has depleted the seed bank or has adversely affected populations. Plants are easily cultivated, and the species is well established as a nursery trade plant, thereby reducing potential collection pressure. Based on the best scientific and commercial data available, we conclude that collection for recreational, scientific, or educational purposes is not a threat to the Neches River rose-mallow and is not likely to become one in the future.

C. Disease or Predation

Leaves and stems of plants in the *Hibiscus* family (Kroll 1991, p. 392; Everitt *et al.* 1999, pp. 177–193) are often consumed by white-tailed deer (*Odocoileus virginianus*) (Moreland 2005, p. 48). Cattle also consume the stems but typically to a lesser degree than white-tailed deer (Everitt *et al.* 1999, pp. 187–193). In 1993, evidence of herbivory was present at four of the 11 Neches River rose-mallow subpopulations at Lovelady (Warnock 1995, p. 18) and in 2010, at compartment 20 (Allen and Duty 2010, p. 3). In 2011, at five of the 11 populations, aboveground portions of the Neches River rose-mallow, mainly the tips, were grazed by cattle, with the most intense herbivory occurring at the Lovelady site; cattle on adjacent land were the likely culprit. Herbivore consumption of plants could decrease the reproductive success of the Neches River rose-mallow (Adler *et al.* 2001, p. 1). Only at compartment 20 on the Davy Crockett NF was the evidence of browsing on the flowers observed (Allen and Duty 2010, p. 3); however, the species is able to produce secondary growth, which increases and strengthens the girth rather than the height of the plant (Strauss and Agrawal 1999, p. 179; Bailey 2006, p. 415).

Insect damage and predation has been observed on Neches River rose-mallow plants in several populations; however, regrowth of foliage after herbivory incidents may indicate that the Neches River rose-mallow is adapted to herbivory (Strauss and Agrawal 1999, p. 179). Ninety percent of the first foliage of Neches River rose-mallow leaves at Lovelady had been consumed by insects (Service 2010b, p. 8) with insect predation also seen on compartment 11 plants in 2006 (Philipps 2009, p. 1). The scentless plant bug (*Niesthrea louisianica*) was observed on plants in compartment 55 (Miller 2011, pers. comm.). This bug is known to deposit egg masses on stems, leaves, flower parts, buds, and seed pods of *Hibiscus* species (Wheeler 1977, p. 632), but to also consume *Hibiscus* seeds (Toth 2007, p. 6). Holes were observed on several Neches River rose-mallow plants on all Davy Crockett NF sites (Miller 2011, pers. comm.) and were likely caused by this plant bug. Larval forms of the Hibiscus sawfly (*Atomacera decepta*) can consume Neches River rose-mallow seed pods in herbaria, but have not been noted to affect wild populations (Wieland 1995, p. 1; Creech

2011a, pers. comm.). However, these bugs are not considered a significant pest because the damage to the plants is minor (Toth 2007, p. 6).

Changes in precipitation are not well understood in relationship to insect herbivory (Bale *et al.* 2002, p. 2). Drought conditions may exacerbate consumption of the vegetative and floral parts if other food resources within the plant community become scarce. Temperature shifts related to climate change may trigger corresponding insect population shifts. Impacts from insect population shifts cannot be predicted; however, if conditions favor the growth of insect populations, the effects of insect herbivory on the Neches River rose-mallow could increase. Drought could exacerbate the consumption of leaves and stems if preferred plants were not available, but we conclude that ungulate (hoofed animal) herbivory is an insignificant stressor to the Neches River rose-mallow.

Summary of Factor C

Mammalian herbivory has affected the majority of sites; however, grazing pressures are largely attributed to the lack of other available food resources during periods of drought. Neches River rose-mallow recovers quickly from herbivory incidents and can produce secondary growth, minimizing the overall negative effects of mammalian herbivory. This type of herbivory is not considered to be a threat to the species. Insect herbivory was also observed on several of the sites and was not rangewide, but, with anticipated climate change shifts in temperature and the likelihood that insect populations will increase, we conclude that insect predation is a minor stressor that will likely continue into the future, but it is not a threat to the species.

D. The Inadequacy of Existing Regulatory Mechanisms

Under this factor, we examine whether existing regulatory mechanisms are inadequate to address the threats to the species discussed under the other factors. Section 4(b)(1)(A) of the Act requires the Service to take into account ''those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species . . . .'' In relation to Factor D under the Act, we interpret this language to require the Service to consider relevant Federal, State, and tribal laws, regulations, and other such mechanisms that may minimize any of the threats we describe in threat analyses under the other four factors, or otherwise enhance conservation of the species. We give strongest weight to statutes and their implementing regulations and to management direction that stems from those laws and regulations. An example would be State governmental actions enforced under a State statute or constitution, or Federal action under statute.

Having evaluated the significance of the threat as mitigated by any such conservation efforts, we analyze under Factor D the extent to which existing regulatory mechanisms are inadequate to address the specific threats to the species. Regulatory mechanisms, if they exist, may reduce or eliminate the impacts from one or more identified threats. In this section, we review existing State and Federal regulatory mechanisms to determine whether they effectively reduce or remove threats to the Neches River rose-mallow.

Davy Crockett NF lands are federally owned and managed by the USFS for the general public. Four populations of the Neches River rose-mallow occur on the Davy Crockett NF. The Davy Crockett NF classifies the Neches River rose-mallow as a Regional Forester's Sensitive Species (Philipps 2012, pers. comm.), and habitat is within Management Area Zone 4, according to the Revised Land and Resource Management Plan for National Forests and Grasslands in Texas (USDA 1996, entire). This management zone includes the bed, bank, and water resources of the rivers, perennial and intermittent streams and wetlands, and their adjacent areas (United States Department of Agriculture 1996, p. 145). This area is managed to maintain the role and function of aquatic, riparian, and wetland ecosystems while providing opportunities for compatible multiple uses and will be managed to meet recommendations stated in the Texas Wetland Plan (TPWD 1988) and Best Management Practices established by the State (United States Department of Agriculture 1996, p. 151). Relative Management Area Zone 4 standards and guidelines include: Maintenance or restoration of native plant communities; prohibition of nonaquatic herbicide uses, except hand applications or noxious weed control following restriction on the herbicide label; and use of prescribed fire when necessary to enhance riparian vegetation or wildlife habitat (United States Department of Agriculture 1996, pp. 153, 155). Herbicides are not currently being used on the Davy Crockett NF and have been replaced by prescribed fire, with the goal of routinely burning compartments every 3 years (Stiles 2011, pers. comm.). As discussed previously (see ''Nonnative Species'' under the Factor A discussion), routine fires may play a role in reducing Chinese tallow. Actions that may affect Neches River rose-mallow habitat need to be assessed using these standards and guidelines because these are considered regulations that need to be followed (Philipps 2012, pers. comm.). The encroachment of nonnative and native vegetation in Neches River rose-mallow habitat is not addressed in the Revised Land and Resource Management Plan for National Forests and Grasslands in Texas; however, the application of prescribed fire in some areas may benefit the Neches River rose-mallow.

The Neches River rose-mallow is considered by the USFS to be a sensitive species on the Davy Crockett NF. A sensitive species is defined as one not yet warranting listing as an endangered or threatened species, but which is sufficiently rare that its future survival is of concern (USFS Manual 2670, 2005). The management objectives described in USFS Manual 2670 are to develop and implement management practices to ensure that species do not become endangered or threatened because of USFS actions, including: Maintain viable populations of all native and desired nonnative wildlife, fish, and plant species in habitats distributed throughout their geographic range on NF System lands; and develop and implement management objectives for populations or habitat of sensitive species or both. Application of USFS Manual 2670 standards are only guidelines, and are not mandatory. However, the USFS must consider the effects of their actions on the viability of sensitive species through the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) process. As defined by USFS policy, actions must not result in loss of species viability or create significant trends toward the need for Federal listing. This designation does not provide specific habitat or species protection, but does provide some benefits to the species because of increased awareness and evaluating projects that may affect the species through the NEPA process. Specific threats to the Neches River rose-mallow are not addressed with this designation.

Existing regulatory mechanisms do not provide protection for plants on private lands. Neches River rose-mallow populations on Davy Crockett NF lands only receive some protection from habitat modification. In addition, not all threats are addressed, such as encroachment of nonnative and native species into Neches River rose-mallow habitat. The designation as a sensitive species for the Neches River rose-mallow does not address the threats

specific to the species. Only when the species is listed under the Act will the USFS be required to consult on projects that could impact the species or its habitat. Therefore, based on our review of the best scientific and commercial data available, we conclude that existing regulatory mechanisms provide some protection against threats, but these mechanisms do not address or ameliorate all of the threats.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Small Population Size

Small population size can result in a decrease in genetic diversity due to genetic drift (the random change in genetic variation each generation) and inbreeding (mating of related individuals) (Antonovics 1976, p. 238; Ellstram and Elam 1993, pp. 218–219). Genetic drift can decrease genetic variation within a population by favoring certain characteristics and, thereby, increasing differences between populations (Ellstram and Elam 1993, pp. 218–219). Self-fertilization and low dispersal rates can cause low genetic diversity due to inbreeding (Antonovics 1976, p. 238; Barrett and Kohn 1991, p. 21). This decreased genetic diversity diminishes a species' ability to adapt to the selective pressures of a changing environment (Ellstrand 1992, p. 77; Newman and Pilson 1997, p. 360).

Klips (1995) looked at the genetic affinity of the Neches River rose-mallow compared with the two other congeners (similar) species, *Hibiscus moscheutos* and *H. laevis.* In his study, Klips concluded both *H. dasycalyx* and *H. laevis* are genetically more similar than *H. moscheutos.* Mendoza created the genetic fingerprints for all three congener species to help determine the level of hybridization within and among populations. Both studies observed wild plants that appeared to be hybrids; however, neither Klips nor Mendoza studied the occurrence of hybridization among the populations of the Neches River rose-mallow. There is no evidence that Neches River rose-mallow populations are experiencing genetic drift or inbreeding. We conclude that small population size is not a threat to the Neches River rose-mallow.

Hybridization

The genus *Hibiscus* easily hybridizes in the nursery trade (Creech 2011a, pers. comm.). Hybridization under natural conditions has not been verified, but several Neches River rose-mallow sites contain individuals that may be products of crosses between the Neches River rose-mallow with *H. laevis* or *H. moscheutos.* In some locations, *H. laevis* or *H. moscheutos,* or both, grow in close proximity to the Neches River rose-mallow. These plants have leaves, flowers, and floral parts resembling both parent species (Service 2010b, p. 3; TXNDD 2012a, entire). Other species accounts, including our candidate notices of review and anecdotal accounts from USFS, TPWD, and other botanists, conclude that there is the potential that hybrids may exist at most, if not all, of the sites; however, genetic studies have not confirmed that this phenomenon is occurring. So far, these are only observations, and no genetic studies have taken place to verify if hybridization is occurring. The University of Texas-Tyler is researching the hybridization issue for Neches River rose-mallow and its impacts on the population; however, the project is only in its infancy, and no results have been determined. Therefore, we do not consider hybridization to be a threat to the Neches River rose-mallow.

Conservation Efforts To Reduce Other Natural or Manmade Factors Affecting Its Continued Existence

We have several examples of voluntary conservation efforts that are currently underway, or which took place in the past, that directly, or indirectly, assist the Neches River rose-mallow by addressing the impacts of habitat loss and degradation, or low population and individual plant numbers. See description under the Factor A analysis above.

Cumulative Effects From Factors A Through E

The threats that have the most severe impacts to the Neches River rose-mallow and its habitat involve the loss, destruction, modification, and curtailment of habitat. The rangewide and imminent threat from nonnative species encroachment (mainly Chinese tallow) and native woody species (sweetgum and green ash) will likely continue if regulatory mechanisms are not employed. Alteration of natural hydrological features of Neches River rose-mallow is an ongoing and potential threat, having rangewide impacts. Trampling and herbivory also impact the Neches River rose-mallow.

Threats discussed in this finding could work in concert with one another to cumulatively create situations that potentially impact Neches River rose-mallow beyond the scope of the combined threats that we have already analyzed. Specifically, threats may be exacerbated by the effects of ongoing and future climate change, especially the projected increases in temperature and decreases in precipitation that may increase the frequency and severity of droughts. Although the Neches River rose-mallow is adapted to being dry during portions of the year, a complete lack of water can diminish its ability to expand its known range and reduce its genetic exchange. Further, climate change could lead to an increase in nonnative species, because nonnative species can typically tolerate a wider range of habitat conditions outside of those that are suitable for the Neches River rose-mallow. Drought conditions can increase the susceptibility of sites to be impacted from trampling from feral hogs, such that observations of broken and flattened plants would increase. The reproductive capabilities of feral hogs and their ubiquitous foraging behavior allows them to adapt well to drought conditions. Herbivory from cattle, or white-tail deer, would also increase in concert with future effects of climate change. Hydrological alterations combined with drought conditions could cause or intensify herbivory. This phenomenon was only observed at The Texas Land Conservancy site in 2011 by cattle, where drought likely increased the grazing pressures not normally experienced by the Neches River rose-mallow within this site. A reduction in the height of Neches River rose-mallow stems could increase its vulnerability to browsing by cattle. The drought conditions of 2011 caused decreased heights in Neches River rose-mallow plants; this, combined with the lack of a cattle exclusion fence on an adjacent land to The Texas Land Conservancy, likely increased the risk of herbivory. When normal rainfall resumes and preferred forage sources become available, herbivory would likely decrease.

Summary of Factors

The primary factors threats to Neches River rose-mallow are nonnative species encroachment at all sites; invasion of sites by native woody species, causing shading and increased competition for resources; ongoing and potential changes to key hydrological features of the species' habitat; future construction and ROW projects; and aerial herbicide drift incidents. These factors pose imminent threats to the species because they are ongoing or are likely to occur in the near future. Since the Neches River rose-mallow is endemic to intermittent and perennial wetlands, drought can exacerbate all of the existing threats.

Determination

Based on our review of the best scientific and commercial data

available, we conclude that the Neches River rose-mallow is likely to become an endangered species within the foreseeable future and, therefore, meets the definition of a threatened species. This finding, explained below, is based on our conclusions that the Neches River rose-mallow's primary threats are imminent, thus causing the species to exhibit low viability as characterized as having only one site close to meeting its conservation goals. Significant factors that support this determination include the following:

- The significant and ongoing threat from nonnative species at all sites (Factor A);
- The encroachment of habitat from woody natives (Factor A);
- The potential extirpation of an occupied Neches River rose-mallow site from a reservoir project (Factor A);
- Ongoing and potential changes to key hydrological features of the species' habitat (Factor A);
- The potential threat from future construction and ROW projects (Factor A);
- The trampling from feral hogs (Factor A);
- Ongoing threats from aerial herbicide drift incidents (Factor A); and
- Sustained drought that affects habitat quality and reproductive output of the species (Factor A).

We relied on Pavlik's Minimum Viable Population analysis tool (1996, pp. 127–155) and species experts to determine the conservation goals of the species. Based on the best known and available scientific information on the species' life-history and reproductive characteristics, we concluded that the conservation goals for the Neches River rose-mallow included 10 viable populations, each containing at least 1,400 individual plants. The species is limited to the Neches, Sabine, and Angelina River basins and the Mud and Tantabogue Creek basins with 11 extant sites throughout this range. However, many of these sites were introduced and are now compromised by threats from feral hog damage, hydrological changes, nonnative and native species encroachment into habitat, construction projects, and herbicide overspray. Future management actions that ameliorate these threats could allow for the species to expand within its known range. The extant populations are generally small. The only site that has come close to reaching the conservation goals are on compartment 55 of the USFS; however, it still only comprises 53 percent of the needed plants at this site (750 plants were seen in 2010).

The main sources of habitat loss, degradation, and modification include hydrologic changes (which alter habitat suitability, growth of plants, expansion into new areas, and potentially seed dispersal); encroachment of habitat from woody natives and invasive nonnatives (which out-shade and compete for nutrients and water absorption); road construction and maintenance projects; aerial drift of herbicides (which may go unregulated on private lands); trampling by feral hogs (known to flatten and break plants); and herbivory. These can have a cumulative impact that further depletes population numbers. Drought is likely to exacerbate these threats.

Most threats are distributed across the geographic range of the Neches River rose-mallow. These threats include: Encroachment by woody natives and invasive nonnatives, hydrological changes, and trampling. The threat from nonnatives is imminent and is occurring at all populations, resulting in competition for light and nutrients, but maintenance activities occur within some populations to minimize this threat. Although information on populations inhabiting private lands is a bit lacking, some degree of hydrological change has been seen at most sites and is therefore rangewide. This threat is likely to continue into the future as water resources become more scarce and important to the human population. Drought will likely exacerbate existing threats and impact all populations. Direct impacts to plants from trampling has been documented at 4 of the 11 Neches River rose-mallow sites, and several others have had documented observations of damaged habitat from feral hog tracks. However, some threats do not affect all Neches River rose-mallow populations. For instance, drift from herbicide spraying likely resulted in the extirpation of the Neches River rose-mallow in the SH 230 ROW, and the other two populations within SH ROWs may be affected by herbicide spraying in the future; however, Neches River rose-mallow populations on NF lands are not threatened by this activity. To our knowledge, this species has not experienced a reduction in its range, all of the known populations and sites are still present on the landscape, and the natural populations have maintained viable population numbers. In addition, there are four introduced populations that remain viable, although the introduced populations on USFS lands have declined in recent years. Some threats are likely to occur in the near future, but are not ongoing. The potential effects from the construction of the Lake Columbia reservoir have not taken place, and there is uncertainty if the downstream population of Neches River rose-mallow would be affected by changes in hydrology. Therefore, we conclude that the species does not meet the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range), but meets the definition of a threatened species (likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range).

We evaluated whether the Neches River rose-mallow is in danger of extinction now (i.e., an endangered species) or is likely to become in danger of becoming endangered (i.e., a threatened species) in the foreseeable future. The foreseeable future refers to the extent to which the Secretary can reasonably rely on predictions about the future in making determinations about the conservation status of the species. A key statutory difference between an endangered species and a threatened species is the timing of when a species may be in danger of extinction, now (endangered) or in the foreseeable future (threatened species).

In the case for the Neches River rose-mallow, the best available scientific information indicates that, while reductions in the species' range have not occurred, there have been significant impacts from habitat modification and loss that has caused reductions in most, if not all, of the known Neches River rose-mallow populations. However, there are sufficient numbers of populations available, some of which are being conserved for the Neches River rose-mallow. Four of the 11 existing Neches River rose-mallow populations, including the largest and most robust population, occur on USFS lands. However, the USFS Revised Land and Resource Management Plant does not address all the significant threats to the species. The Texas Land Conservancy private land site was purchased as a conservation easement for the Neches River rose-mallow. However, these protection measures are voluntary. We conclude that the Neches River rose-mallow is likely to become an endangered species within the foreseeable future, meeting the standard of a threatened species.

The Act defines threatened as ''any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' A major part of the analysis of ''significant portion of the range'' requires considering whether the threats to the Neches River rose-mallow are geographically concentrated in any way.

If the threats are consistently uniform throughout the species' range, then no portion is likely to warrant further consideration.

As threats extend throughout the species' entire range and are not geographically concentrated, it is unnecessary to determine whether the Neches River rose-mallow should be considered an endangered species within a significant portion of its range. Therefore, on the basis of the best available scientific and commercial information, we are listing the Neches River rose-mallow as a threatened species throughout its range in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as an endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation by Federal, State, tribal, and local agencies; private organizations; and individuals. The Act encourages cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act requires the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning includes the development of a recovery outline shortly after a species is listed, preparation of a draft and final recovery plan, and revisions to the plan as significant new information becomes available. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan identifies site-specific management actions that will achieve recovery of the species, measurable criteria that determine when a species may be downlisted or delisted, and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (comprising species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outline, draft recovery plan, and the final recovery plan will be available on our Web site (*http://www.fws.gov/endangered*), or from our Texas Coastal Ecological Services Field Office in Corpus Christi (see **ADDRESSES**, above).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (e.g., restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and tribal lands.

Once these species are listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of Texas would be eligible for Federal funds to implement management actions that promote the protection and recovery of the Texas golden gladecress and the Neches River rose-mallow. Information on our grant programs that are available to aid species recovery can be found at: *http://www.fws.gov/grants.*

Please let us know if you are interested in participating in recovery efforts for the Texas golden gladecress and the Neches River rose-mallow. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

For the Texas golden gladecress, Federal agency actions that may require consultation would include federally funded or permitted actions occurring within the species' habitat, specifically within the zone of Weches outcrops in Sabine and San Augustine Counties. Anticipated actions include: (1) Provision of Federal financial and technical assistance through the U.S. Department of Agriculture; (2) permits issued by the Federal Energy Regulatory Commission for installation of interstate natural gas pipelines and associated infrastructure; (3) provision of Federal Highway Administration funds for road projects; (4) provision of Department of Housing and Urban Development funds for municipal and residential construction and infrastructure projects in towns along SH 21 within the range of the Texas golden gladecress; (5) funds for electric service improvements provided to electric cooperatives by the U.S. Department of Agriculture's Rural Utilities Service; (6) U.S. Army Corps of Engineers (USACE)-issued section 404 and section 10 permits for wetland crossings that are part of linear projects such as roads, transmission lines, or pipelines; and (7) actions funded by the Federal Emergency Management Agency. Also subject to consultation would be provision of Federal funds to State and private entities through Federal programs such as the Service's Partners for Fish and Wildlife Program, State Wildlife Grant Program, and Federal Aid in Wildlife Restoration Program.

For the Neches River rose-mallow, Federal agency actions that may require consultation would include federally funded or permitted actions occurring within the species habitat. These actions could include: (1) New construction and maintenance of roads or highways by the Federal Highway Administration; (2) issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) and section 10 permits by the USACE for federally funded activities within Federal jurisdictional wetlands; (3) management and any other landscape-altering activities on Federal lands administered by the Fish and Wildlife Service and U.S. Department of Agriculture's USFS; and (4) Federal Highway Administration funds given to TXDOT for SH ROW maintenance.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered and threatened plants. The prohibitions of section 9(a)(2) of the Act, codified at 50 CFR 17.61, apply to endangered plants. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove and reduce the species to possession from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits the malicious damage or destruction on areas under Federal jurisdiction and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including State criminal trespass law. It is also unlawful to violate any regulation pertaining to plant species listed as endangered or threatened (section 9(a)(2)(E) of the Act).

Chapter 88 of the Texas Parks and Wildlife Code lists plant species as State endangered or threatened, with the same status as the Federal designation, immediately upon completion of final Federal listing. The State prohibits commerce in endangered or threatened plants and the collection of listed plant species from public land (defined as State-owned and land belonging to local governments) without a permit issued by TPWD. The State also prohibits removal for purposes of commercial sale, possession for commercial sale, transport for commercial sale, or sale of all or part of a listed plant from private land without a permit issued under Texas Parks and Wildlife Code, section 88.0081. The TPWD requires commercial permits for the commercial use of listed plants collected from private land. Scientific permits are required for collection of endangered plants or plant parts from public lands for scientific or education purposes.

We may issue permits to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.62 for endangered plants, and at 17.72 for threatened plants. With regard to endangered plants, a permit must be issued for the following purposes: For scientific purposes or to enhance the propagation or survival of the species.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a listing on proposed and ongoing activities within the range of listed species. The following activities could potentially result in a violation of section 9 of the Act; this list is not comprehensive:

(1) Unauthorized collecting, handling, possessing, selling, delivering, carrying, or transporting of the Texas golden gladecress or the Neches River rose-mallow, including import or export across State lines and international boundaries, except for properly documented antique specimens of these taxa at least 100 years old, as defined by section 10(h)(1) of the Act.

(2) Unauthorized removal, damage, or destruction of Texas golden gladecress or Neches River rose-mallow plants from populations located on State-owned land (highway ROWs) or on land owned by local governments.

(3) Unauthorized removal, damage, or destruction of Texas golden gladecress or Neches River rose-mallow plants on private land in violation of any State regulation, including criminal trespass.

(4) Unauthorized removal, damage, or destruction of Texas golden gladecress or Neches River rose-mallow plants from populations located on federally owned lands.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the Texas Coastal Ecological Services Field Office in Corpus Christi (see **FOR FURTHER INFORMATION CONTACT**). Requests for copies of the regulations concerning listed species and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, 6300 Ocean Drive, Unit 5837, Corpus Christi, TX 78412–5837 (telephone 361–994–9005; facsimile 361–994–8262).

Upon listing the Texas golden gladecress and the Neches River rose-mallow under the Act, the State of Texas's Endangered Species Act (Texas Administrative Code Chapter 88:88.001–88.012) is automatically invoked. The State's Endangered Species Act would prohibit commerce in endangered or threatened plants and the collection of listed plant species from public land without a permit issued by TPWD and would restrict any take for commercial purposes from private land to individuals possessing a permit issued under section 88.0081. The State's law would also encourage conservation by State government agencies. Further, the State may enter into agreements with Federal agencies to administer and manage any area required for the conservation, management, enhancement, or protection of endangered species. Funds for these activities could be made available under section 6 of the Act (Cooperation with the States). Thus, some Federal protection afforded to these species by listing them (Texas golden gladecress as endangered, and Neches River rose-mallow as threatened) will be reinforced and supplemented by protection under State law.

Under section 4(d) of the Act, the Secretary of the Interior has discretion to issue such regulations as he deems necessary and advisable to provide for the conservation of threatened species. Our implementing regulations (50 CFR 17.71) for threatened plants generally incorporate the prohibitions of section 9 of the Act for endangered plants, except under certain circumstances, such as when a ''special rule'' promulgated under section 4(d) of the Act has been issued with respect to a particular threatened species. In such a case, the general prohibitions in 50 CFR 17.61 would not apply to that species, and instead, the special rule would define specific take prohibitions and exceptions, which we consider necessary and advisable to conserve the species, that would apply for that particular threatened species. With respect to a threatened plant, the Secretary of the Interior also has the discretion to prohibit by regulation any act prohibited by section 9(a)(2) of the Act. Exercising this discretion, which has been delegated to the Service by the Secretary, the Service has developed general prohibitions that are appropriate for most threatened plants in 50 CFR 17.71 and exceptions to those prohibitions in 50 CFR 17.72. We are not promulgating a special section 4(d)

rule, and as a result, all of the section 9 prohibitions, including the ''take'' prohibitions, will apply to the Neches River rose-mallow.

Required Determinations

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), need not be prepared in connection with listing a species as an endangered or threatened species under the Endangered Species Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2012–0064 and upon request from the Texas Coastal Ecological Services Field Office in Corpus Christi (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff of the Texas Coastal Ecological Services Field Office in Corpus Christi.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. Amend § 17.12(h) by adding entries for ''*Hibiscus dasycalyx*'' and ''*Leavenworthia texana*'' to the List of Endangered and Threatened Plants in alphabetical order under ''Flowering Plants'', to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*		*
Hibiscus dasycalyx	Neches River rose-mallow.	U.S.A. (TX)	Malvaceae	T	814	17.96(a)	NA
*	*	*	*	*	*		*
Leavenworthia texana ..	Texas golden gladecress.	U.S.A. (TX)	Brassicaceae ..	E	814	17.96(a)	NA
*	*	*	*	*	*		*

* * * * *

Dated: August 29, 2013.

Rowan W. Gould,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2013–22085 Filed 9–10–13; 8:45 am]

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Part VI

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Texas Golden Gladecress and Neches River Rose-Mallow; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2013–0027, 4500030113]

RIN 1018–AZ49

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Texas Golden Gladecress and Neches River Rose-Mallow

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for two Texas plants, *Leavenworthia texana* (Texas golden gladecress) and *Hibiscus dasycalyx* (Neches River rose-mallow), under the Endangered Species Act of 1973. Critical habitat for the Texas golden gladecress is located in Sabine and San Augustine Counties, Texas, and for the Neches River rose-mallow in Nacogdoches, Houston, Trinity, Cherokee, and Harrison Counties, Texas. The effect of this regulation is to designate critical habitat for these two East Texas plants under the Endangered Species Act.

DATES: This rule becomes effective on October 11, 2013.

ADDRESSES: This final rule and other supplementary information are available on the Internet at *http://www.regulations.gov* (Docket No. FWS–R2–ES–2013–0027) and also at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm.* These documents are also available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Texas Coastal Ecological Services Field Office, 6300 Ocean Drive, USFWS Unit 5837, Corpus Christi, TX 78412–5837; telephone 361–994–9005; facsimile 361–994–8262.

The coordinates or plot points or both from which the critical habitat maps are generated are included in the administrative record for this rulemaking and are available at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,* at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027, and at the Texas Coastal Ecological Services Field Office, Corpus Christi (see **FOR FURTHER INFORMATION CONTACT**).

FOR FURTHER INFORMATION CONTACT: Edith Erfling, Field Supervisor, U.S. Fish and Wildlife Service, Texas Coastal Ecological Services Field Office (see **ADDRESSES**). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. On September 11, 2012 (77 FR 55968), we published a proposed rule to designate critical habitat for *Leavenworthia texana* (Texas golden gladecress) and *Hibiscus dasycalyx* (Neches River rose-mallow). In this rule, we are finalizing our designation for critical habitat under the Endangered Species Act (Act). The Act requires that a final rule be published in order to designate critical habitat for endangered and threatened wildlife to provide protections under the Act.

Elsewhere in today's **Federal Register**, we are finalizing determination of listing *Leavenworthia texana* (Texas golden gladecress) as an endangered species and *Hibiscus dasycalyx* (Neches River rose-mallow) as a threatened species under the Act. The final listing determination rule and supporting documents will publish under Docket No. FWS–R2–ES–2012–0064, and can also be found at the above locations.

The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the Texas golden gladecress and the Neches River rose-mallow. Here we are designating:

- Approximately 1,353 ac (547 ha) of critical habitat for the Texas golden gladecress in Sabine and San Augustine Counties; and
- Approximately 166.5 ac (67.4 ha) of critical habitat for the Neches River rose-mallow in Cherokee, Houston, Trinity, Harrison, and Nacogdoches Counties, Texas.

This rule consists of: A final rule for designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow. The Texas golden gladecress and the Neches River rose-mallow have been listed under the Act. This rule designates critical habitat necessary for the conservation of the species.

We have prepared an economic analysis of the designation of critical habitat. In order to consider economic impacts, we have prepared an analysis of the economic impacts of the critical habitat designations and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on April 16, 2013 (78 FR 22506), allowing the public to provide comments on our analysis. We have incorporated the comments and have completed the final economic analysis (FEA) concurrently with this final determination.

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from four knowledgeable individuals with scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best available information. These peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final revised designation. We also considered all comments and information received from the public during the comment period.

Previous Federal Actions

All previous Federal actions are described in the final rule to list the Texas golden gladecress as an endangered species and Neches River rose-mallow as a threatened species under the Act published elsewhere in today's **Federal Register**.

Background

This document contains final rules to designate critical habitat for the Texas golden gladecress and Neches River rose-mallow. The document is structured to address the taxa separately under each of the sectional headings that follow.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the Texas golden gladecress and Neches River rose-mallow during two comment periods. The first comment period associated with the publication of the proposed rule (77 FR 55968) opened on September 11, 2012, and closed on November 13, 2012. We also requested comments on the proposed critical habitat designation and associated draft economic analysis during a comment period that opened April 16, 2013, and closed on May 16, 2013 (78 FR 22506). We received requests for a public hearing, and one was held on May 1, 2013. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and draft economic analysis during these comment periods.

During the first comment period, we received 15 comment letters directly addressing the proposed critical habitat designation. During the second comment period, we received 22 comment letters addressing the proposed critical habitat designation or the draft economic analysis. During the May 1, 2013, public hearing, five individuals or organizations made comments on the designation of critical habitat for the Texas golden gladecress and Neches River rose-mallow. All substantive information provided during comment periods has either been incorporated directly into this final determination or addressed below. Comments received were grouped by submitter's affiliation, whether peer reviewer, State (agencies or officials), or public, relating to the proposed critical habitat designation for Texas golden gladecress and Neches River rose-mallow. All are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from six knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles and characteristics of their habitats, including the unique geology; as well as land uses common to the region that may bear on the threats to both species. We received responses from four of the peer reviewers.

We reviewed all comments received from the peer reviewers for substantive issues and new information regarding listing of the Texas golden gladecress and Neches River rose-mallow. The peer reviewers generally agreed with portions of our assessment, including the threats analysis, and most of our conclusions, although they pointed out areas where additional research would refine our understanding of the two species' habitat requirements and range. Two peer reviewers agreed with our conclusions that habitat loss and degradation associated with human activities (including energy exploration and production, quarrying, and pine tree plantings in close proximity to glades) as well as the overgrowth of both species' habitats by invading woody and weedy native and nonnative plants, were adversely affecting the Texas golden gladecress and the Neches River rose-mallow. One peer reviewer also agreed that the Neches River rose-mallow has insufficient regulatory protections. One peer reviewer believed that critical habitat designation for the Texas golden gladecress would be an improvement to conservation efforts for this species and an associated endangered plant. The peer reviewers pointed out additional information, clarifications, and suggestions for future research that would inform future surveys to refine the geographic range, and help with management and recovery efforts. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

(1) *Comment:* Additional outreach to private landowners with potential critical habitat is recommended, prior to the determination. It is essential to make each landowner aware of the issues, regardless of their interest.

Our response: With regard to landowners, prior to publication of the proposed rule, in September 2011, we sent letters to 107 entities, including Federal and State elected officials; representatives of Texas Parks and Wildlife Department (TPWD), Texas Commission on Environmental Quality, Texas Department of Transportation (TXDOT), Texas General Land Office, Texas Forest Service, Texas Department of Agriculture, Natural Resources Conservation Service (NRCS), U.S. Army Corps of Engineers, U.S. Forest Service, universities, conservation organizations and other non-governmental organizations; and representatives of timber and forestry industries and forestry services, informing them of our need to gather and analyze the best available information for our use in developing a proposed rule to list and designate critical habitat for both species. From that point on, we added landowner contacts that were given to us to our notification list. For some sites, land ownership was clarified in file records or through communications with representatives of other organizations.

Furthermore, for the Texas golden gladecress, we partnered with TPWD in March 2012 to host a Weches Glades workshop and field tour in San Augustine, to which we invited four private landowners (two with Texas golden gladecress and two with *Lesquerella pallida* (white bladderpod), an associated endangered plant, populations on their property). As preparation for the field tour, permission to access sites was obtained from these four landowners. The purpose of the workshop and field tour was to acquaint landowners, and agency representatives that work with private landowners, with the glade and outcrop habitats, rare plants, and the Act listing process and implications, particularly as it applies to plants. In addition to these landowners, 24 other individuals were invited to the workshop, including two San Augustine County commissioners, the Mayor of San Augustine, the Chairman of the local Soil and Water Conservation District, NRCS, Texas Forest Service, a private forestry services company, and a mining company. Of the 28 invitees, 17 attended the workshop and field tour.

As additional outreach to Neches River rose-mallow landowners, land managers, and agencies that work with them, TPWD organized a workshop and two-day field trip in August, 2012. The workshop also furnished an opportunity to explain the listing process and its applicability for plants. A pre-field trip workshop allowed information to be presented to 45 attendees that included the Texas Land Conservancy (owner of the Neches River rose-mallow Lovelady site) and TXDOT (owner of the right-of-way (ROW) sites along state highway (SH) 204 and 94).

On September 11, 2012, we sent letters to 164 entities notifying them of the proposed rule publication in the **Federal Register**, including Federal and State elected officials; local elected officials (including county judges within the range of the species); representatives of TPWD, Texas Commission on Environmental Quality, TXDOT, Texas General Land Office, Texas Forest Service, Texas Department of Agriculture, NRCS, U.S. Army Corps of Engineers, U.S. Forest Service, universities, conservation organizations and other non-governmental organizations; and representatives of timber and forestry industries and forestry services.

On April 16, 2013, the day of **Federal Register** publication of the notice of availability of the draft economic analysis and reopening of the proposal to list the plants and designate critical habitat, we emailed letters to 157 people including representatives of agriculture, timber, oil and gas, and mining industries; local elected officials from the counties in question; agency staff that work with landowners, and those landowners for whom we had email addresses. Within 2 days of publication in the **Federal Register**, we also sent 208 letters by mail to state and local elected officials (including all county judges and commissioners); industry representatives; academics; conservation organizations; State, Federal, and local agencies: And all individual landowners who had been identified through the past 2 years since

our initial information solicitation in September 2011.

(2) *Comment:* Two peer reviewers commented on the critical habitat maps as they appear in the proposed rule. Specifically for the Neches River rose-mallow's critical habitat unit 1 it seems that the map does not depict critical habitat within the State highway right-of-way (SH ROW); however, Table 8 specifically states that 1.1 ac (0.45 ha) of critical habitat is present within the SH ROW. There might be confusion between landowners and other interested parties about whether or not their property is within critical habitat because of the map resolution and detail.

Our Response: In the case of the rose-mallow's critical habitat unit 1, the designated critical habitat includes both SH ROW and private land. For both species, the intended use of the critical habitat unit maps is to identify the general areas where the Texas golden gladecress' or the Neches River rose-mallow's critical habitat is designated. Although we have tried to include landmarks, such as labeled roads, to help readers find the location of the critical habitat units, the scale of the maps is such that the level of detail and resolution may not help in identifying individual land ownership. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site, at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm, http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027 and at the field office responsible for this designation.

(3) *Comment:* One peer reviewer thought that critical habitat designation for the Texas golden gladecress was a good idea ''if it allows the exclusion of some Weches outcrops that are unsuitable . . . and is done on a fine scale . . . of blocks, say one mile in diameter''. This reviewer believed this approach would ensure that economic activity based on mining is not adversely impacted. He indicated his opinion that Weches mining could be done in such a way as to allow both activities to continue.

Our response: Although it is unclear if the peer reviewer's comment about the size of critical habitat blocks (one mile in diameter) has any scientific basis, we are interpreting him to mean that relatively small areas of critical habitat could be included or excluded from designation to allow for quarrying outside of the designated critical habitat. We are required to designate critical habitat for geographical areas that are occupied by the species at the time of listing, which contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. Based on this requirement the Service designated critical habitat for the species based on the presence of the features essential to its conservation and its tight association with the Weches Formation and associated soils (Singhurst 2011a, pers. comm.). To determine the boundaries of critical habitat units we used a geographic information system (GIS) to overlay the appropriate soil maps over the occupied areas. The perimeter of Texas golden gladecress critical habitat was mapped by following the borders of the appropriate U.S. Department of Agriculture soil layers (see ''Mapping Texas Golden Gladecress Critical Habitat'' section of this final rule).

Section 7 of the Act requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by a Federal agency (thereby constituting a Federal nexus) is not likely to result in the destruction or adverse modification of critical habitat. If there is not a Federal nexus for a given action, then critical habitat designation, including on private lands, does not restrict any actions that destroy or adversely modify critical habitat. We have determined that quarrying of glauconite in Texas does not require Federal permits or have any other Federal nexus, therefore section 7 consultation is not expected for quarrying activities. If a person wishes to develop private land, with no Federal nexus, and in accordance with State law, then destroying or adversely modifying critical habitat does not violate the Act. The Service can and will provide technical assistance to mining (quarrying) companies to minimize and avoid impacts to the Texas golden gladecress critical habitat if such assistance is requested.

(4) *Comment:* In the case of the Neches River rose-mallow, a peer reviewer agreed that there is not a mechanism for protection other than perhaps existing wetland regulations under the U.S. Army Corps of Engineers.

Our Response: Section 7 consultation for U.S. Army Corps of Engineers-issued permits is one avenue regulating impacts to the Neches River rose-mallow. Additionally, four of the 11 extant populations of Neches River rose-mallow are found on the Davy Crockett NF where the U.S. Forest Service considers the Neches River rose-mallow as a Regional Forester's Sensitive Species and its habitat is managed under A Revised Land and Resource Management Plan for National Forests and Grasslands in Texas. This provides some level of species and habitat protection; however, their plan is not specific. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out (i.e., projects with a Federal nexus) are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a person wishes to develop private land with no Federal nexus, in accordance with State law, then the potential destruction, damage, or movement of endangered or threatened plants does not violate the Act.

(5) *Comment:* In the case of the Texas golden gladecress, the Service needs a better understanding of the variability of the Weches Formation across the numerous counties which the formation underlies when determining what may constitute the physical or biological features for the species and where these features are currently found. The Service should look at variations in calcium availability and long-term pH changes across the formation in order to identify more potential sites at which to survey for the Texas golden gladecress.

Our response: We recognize that variability of Weches outcrops does exist across the Weches Formation throughout the numerous counties under which it is found. We agree that a better characterization of the geology and soils underlying known Texas golden gladecress populations could provide useful information. However, there are likely other factors characterizing individual outcrop sites that support the Texas golden gladecress that may also be important. Further, the Service must use the best scientific and commercial data available at the time of critical habitat determination. Determining the chemical components of the geological formations beneath known glade sites is not a feasible accomplishment within the timeframe we have to publish our final determination. This research would be addressed in recovery planning. For purposes of this final rule designating critical habitat, we used the more general Weches Formation outcrops descriptions, and we more specifically relied on the geologic and soils information available from one known Texas golden gladecress population site, as well as from one white bladderpod site. Please see the ''Criteria Used To Identify Critical Habitat for Texas Golden Gladecress'' and ''Mapping Texas Golden Gladecress Critical Habitat'' sections for the Texas golden gladecress in this final rule for more information.

(6) *Comment:* Clarification on exclusions of critical habitat within SH ROWs was requested by a peer reviewer and the State. There is a contradiction within the proposed rule regarding critical habitat in SH ROWs for the Neches River rose-mallow versus the Texas golden gladecress. The proposed rule states that, for Neches River rose-mallow, ROW would be excluded for the area designated as critical habitat, but ROW is not considered excluded from critical habitat units for the Texas golden gladecress. For Neches River rose-mallow critical habitat unit 1, the map in the proposed rule does not seem to show critical habitat within the SH ROW; however, Table 8 specifically states that 1.1 ac (0.45 ha) of critical habitat is present within the SH ROW.

Our Response: Language in the proposed rule indicating that Neches River rose-mallow's critical habitat excluded SH ROW was an error and has been corrected in this determination. Extant populations of both Neches River rose-mallow and Texas golden gladecress occur in SH ROWs, so the ROWs at these sites would be considered occupied habitat.

(7) *Comment:* A peer reviewer suggested that the Service consider excluding the ''filled'' portions of the TXDOT ROWs within the critical habitat units. In low areas such as floodplains, valleys, etc., TXDOT constructs the paved surface of the road on large amounts of ''fill'' (Adams 2013a, pers. comm.). Fill consists of clay soil, which is not suitable habitat for the either plant. This fill material is often brought to a site to elevate the road bed. These areas are then revegetated to reduce erosion. The size of a fill area is dependent on the existing slope and width of the roadway or bridge (Adams 2013a, pers. comm.). This reviewer has never witnessed the Neches River rose-mallow or the white bladderbod (habitat associate of the Texas golden gladecress) growing on the front slope (i.e., the area immediately adjacent to the road) of a TXDOT ROW.

Our Response: Portions of both species critical habitat are within TXDOT ROWs. Two Texas golden gladecress and three Neches River rose-mallow sites extend into ROWs managed by TXDOT. The Service agrees that neither species grows on fill material or immediately adjacent to the road edge. Given the Texas golden gladecress' specialized habitat requirements, and the Neches River rose-mallow requirement of hydric alluvial soils, it is unlikely that either would survive on, or spread onto, areas consisting of fill material used by the TXDOT. Both species grow farther downslope within the ROW where suitable soils still exist. The ROW immediately adjacent to the road, containing the fill material lacks the primary constituent elements for these species. The unfilled portions of the ROWs, where the plants are able to persist, do retain the primary constituent elements that support the life-history processes of the species, while the built-up, paved and filled portions of the roadway do not. Based on this information, the Service includes the fill area along roadways as developed areas that are not included in critical habitat designation because these areas do not meet the definition of critical habitat for either species.

(8) *Comment:* There are ongoing service improvements, including installation of communication, electric power, water and sewer lines, taking place in rural areas, some of which occur in highway ROWs and have potential to occur in Texas golden gladecress critical habitat (Walker 2012, pers. comm.).

Our Response: We acknowledge that the installation of new service lines (e.g., communication, water, domestic gas, and power lines) could potentially occur in more rural areas and these activities typically occur in road ROWs, such as where the Texas golden gladecress occurs. There are two known Texas golden gladecress sites that extend into road ROWs as well as three Neches River rose-mallow sites.

Section 7 of the Act requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by a Federal agency (thereby constituting a Federal nexus) is not likely to result in the destruction or adverse modification of critical habitat. If there is not a Federal nexus for a given action, then critical habitat designation, including on private lands, does not restrict any actions that destroy or adversely modify critical habitat. If a person wishes to develop private land, with no Federal nexus, and in accordance with State law, then destroying or adversely modifying critical habitat does not violate the Act. The Service can and will provide technical assistance to minimize and avoid impacts to the Texas golden gladecress critical habitat if such assistance is requested.

Comments From States

Section 4(i) of the Act states, ''the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.'' Comments received from the State regarding the proposal to designate critical habitat for the Texas golden gladecress and Neches River rose-mallow are addressed below.

(9) *Comment:* One state commenter and two public commenters noted that the Neches River rose-mallow has not been seen at some sites for over a decade. Of the 11 sites considered to be currently occupied by the Neches River rose-mallow, three have not been observed in more than 10 years. The Camp Olympia site has not been relocated since 1978 despite surveys in 1992 and 1993 (Warnock 1995, p. 6). In fact the site was listed as extirpated or historical by Warnock (1995). The Champion site was last observed in 2001. The site has apparently been logged. This site should be revisited before considering it currently occupied. Additionally, one commenter pointed out that the Harrison County population has not been relocated since 1980, perhaps owing to its imprecise location (ca. 5 miles (mi) (8.05 kilometers (km) south of Hallsville) and suggested that it seems difficult to know with any certainty that this site is currently occupied. Using aerial photography to delineate a 20-ac (8.1-ha) site based on a previous interpretation of a vague location does not lead to a precise location on which to base critical habitat. The Service cannot assume that the habitat has remained intact when the location of the occupied site is unverifiable.

Our Response: We consider the three sites referenced by the commenter (Harrison County, Champion, and Camp Olympia) to be occupied by the Neches River rose-mallow for the purposes of critical habitat. Two voucher specimens were collected from Camp Olympia in 1977 by E. Marsh and in 1978 by E. Marsh and C. McLeod; both were identified as the Neches River rose-mallow (TXNDD 2012, pp. 58–59), confirming the species occurrence at this site. The location information from these plant specimens collected in 1977 was used by Warnock (1995) to relocate the population. In Warnock's status report, he described the location of the site, ''beyond the end of Farm-to-Market Road 3188, 200 feet from the water's edge along Lake Livingston'' and provided the latitude and longitude of the site as well (1995, p. 6). Attempts were made on foot in 1992 and by canoe in 1993 to relocate this population (Warnock 1995, p. 6), but without success. However, there are several reasons why the plants may not have been located. Dense vegetation along the shoreline could have made the plant from that distance not easily discernible. Also, the nature of the Neches River rose-mallow habitat,

especially at sites with fluctuating water levels (like oxbows, sloughs, sand bars of river systems), is such that the zone in which the plants are located could shift or the plants perhaps be killed back when conditions are too wet or too dry, but the plants may then re-establish from seed when conditions are suitable (Warnock 1995, p. 6).

The Champion Site was first observed in 1996 with several hundred plants, and revisited in 1997, 1998, and 2001. In 1997, cuttings from plants and seeds were collected and given to Mercer Arboretum. The plants that were observed in 1998 did not have reproductive structures present but were identified as likely Neches River rose-mallow. In 2001, researchers found 300–400 plants. Logging at this site has occurred in the recent past but there is not information to show that the Neches River rose-mallow is no longer present at this site. The seed bank viability of this species is still not clearly understood, but there is potential that even if above-ground plant parts were removed, the seed bank may still be intact. Further, since this species requires open habitat, the removal of canopy species could benefit the Neches River rose-mallow by providing more suitable habitat.

For the Harrison Site, we used the best scientific and commercial data available at the time the proposed rule was published. A voucher specimen was collected in 1980 and was confirmed in 2011 by TPWD and Stephen F. Austin State University (SFASU) researchers as *Hibiscus dasycalyx.* Because we received new information from a commenter that this critical habitat unit was in part an operating lignite mine, known as South Hallsville No. 1 (Texas Mining and Reclamation Association 2013, p. 3), we made inquiries with the Railroad Commission of Texas (RRC) about locations and status of mines in Harrison County. The RRC confirmed that only two mines were in operational status in Harrison County, one of which included the South Hallsville mine (referred to by the commenter) but that this mine was located northeast of the critical habitat Unit 2. The RRC provided new information that the critical habitat unit was a sedimentation pond of a reclaimed (nonfunctional) lignite mine; inactive since the late 1990's. Because the site is a sedimentation pond, and not an area that is being actively excavated for extraction of lignite, the wetland edge associated with the pond may still support the Neches River rose-mallow. The best available scientific and commercial data does not indicate that the Harrison County Site has been altered to the point that the species has been eliminated from this site.

Regarding delineation of critical habitat at these sites, we used satellite imagery from Google Earth to compare available habitat images from 1995 and 2011 to look for habitat alteration that would make these sites unsuitable for the Neches River rose-mallow. It did not appear that Neches River rose-mallow habitat had been altered to the point that the areas would not contain the physical or biological features essential to the conservation of the species (see the ''Final Critical Habitat Designation'' for the Neches River Rose-mallow section of this final rule for more information).

The Act requires that we use the best scientific and commercial information available regardless of the age of the information. The criteria for critical habitat were evaluated using the best scientific and commercial data available including plant surveys that occurred, in some cases, more than 20 years ago. Some areas have not been revisited; however, absence of evidence does not equate to evidence that the plant has been extirpated from an area. For example, SH 230 ROW had not been seen since 2002, and the site was considered extirpated. However, during this comment period we received information that the Neches River rose-mallow was observed in 2012 by a graduate student from SFASU (Melinchuk 2012, p. 3). This is an example of the potential that this species may go undetected for a period of time due to the biology of the species. We also relied on the existence of voucher specimens to help confirm the species presence at these sites in the past. It is often the case that biological information may be lacking for rare species; however, we reviewed all available information and incorporated it into our final rule. We used the best scientific and commercial data available in assessing occupancy, recognizing the limitations of some of the information. We acknowledge that additional surveys and continued monitoring of existing plots would be valuable and should be considered as a recovery action for these species. The best scientific and commercial data available suggest the site is still occupied by the Neches River rose-mallow and contain at least one of the identified physical and biological features essential to the conservation of the species.

The extent to which the occupancy of this unit is in question, we have alternatively designated Units 2, 9, and 11 under section 3(5)(A)(ii) of the Act because we consider them to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including these units in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species.

(10) *Comment:* One state commenter, in addition to two public commenters, expressed their belief that these species have not been fully studied. They indicated that there are significant concerns with the quality of data and analysis the Service used for its determination. They believe that the proposal is based largely on inconclusive reports and vast speculation about operations thought to affect habitats, existing regulatory mechanisms, conservation efforts, species populations, and potential threats that fail to provide any sound scientific foundation on which to justify the listing and critical habitat designation of these species.

Our Response: It is often the case that biological information may be lacking for rare species; however, we considered the best available scientific and commercial information and incorporated it into our final rule. We sought comments from independent peer reviewers to ensure that our designation is based on scientifically sound data, assumptions, and analysis. We did not receive information that the science we used was unsound. We solicited information from the general public, non-governmental conservation organizations, State and Federal agencies that are familiar with the species and their habitats in East Texas, academic institutions, and groups and individuals that might have information that would contribute to an update of our knowledge of the Texas golden gladecress and the Neches River rose-mallow, as well as the activities and natural processes that might be contributing to the decline of either species.

We used information garnered from this solicitation in addition to information in the files of the Service, TPWD, the Texas Natural Diversity Database's (TXNDD's) Elements of Occurrence records for both species, published journal articles, newspaper and magazine articles, status reports contracted by the Service and TPWD, reports from site visits, and telephone and electronic mail conversations with knowledgeable individuals. We also used satellite and aerial imagery to ascertain changes in land cover and land use at historical population sites and to determine whether the presence of primary constituent elements for each species were still in place. Additionally,

we used the results of population monitoring from site visits to look at abundance, and if enough information was available, to get an idea of trends in the populations. In October 2011, we also made field trips to known sites where we were granted access, to verify land uses and contribute to the veracity of our threats analysis. In March of 2012, we helped to organize and carry out a workshop and field tour of Texas golden gladecress sites for the purposes of assisting landowners and agricultural agencies with becoming familiar with the species and its habitat. We also revisited accessible Texas golden gladecress sites. In August 2012, we attended a Neches River rose-mallow workshop and field tour conducted by TPWD and revisited Neches River rose-mallow population sites. We used the best scientific and commercial information available in assessing population status, recognizing the limitations of some of the information.

(11) *Comment:* The critical habitat designations will have a negative impact on agricultural-based economies in rural counties in their district, including raising of cattle and forage, poultry, timber, and row crops.

Our response: As discussed in section 4.7 of the draft economic analysis, for activities such as agriculture, husbandry, and forestry, a Federal nexus may result from technical assistance to private landowners from the U.S. Department of Agriculture's NRCS. In such instances, consultation regarding potential effects of the activities on critical habitat would occur. Following discussions with the NRCS, it was determined that the involvement of the NRCS in projects within the critical habitat designation within the timeframe of the study is unlikely. For this reason, consultation is not expected to occur, and the draft economic analysis does not anticipate critical habitat designation to affect these activities.

As stated in the proposed rule, the designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

As discussed in the draft economic analysis, the designation of critical habitat for the Texas golden gladecress is likely to result in relatively minor administrative impacts, with minimal project modifications likely to result from the designation of critical habitat. All incremental costs are administrative in nature and result from the consideration of adverse modification in section 7 consultation under the Act. Only those projects with a federal nexus would require section 7 consultations with the Service and then it is the responsibility of the federal action agency to consult with the Service, not the private individual or company. Further, all units are occupied by the plant and will require consultation regardless of the designation of critical habitat. In addition, project modifications necessary to avoid adverse modification of critical habitat are indistinguishable from those necessary to avoid jeopardizing the species (see the Service's reasoning in the economic analysis, Appendix B).

(12) *Comment:* One state commenter noted that he was unable to replicate the results presented in Exhibit 4–3 using the formulae presented in Exhibit 2–4.

Our response: The results of the analysis follow from the formulae presented. The cost estimates in the draft economic analysis exhibits are presented as rounded numbers (rounded to two significant digits) but were calculated based on unrounded numbers.

(13) *Comment:* One state comment on the draft economic analysis inquired why the annualized values are identical for both the 3 percent and 7 percent discount rate calculations.

Our response: The annualized value effectively illustrates the economic impact as a stream of payments in equivalent annual payments over a set period of time. If the costs of an activity are expected to be incurred equivalently over the 20-year period of the analysis, the annualized value under any rate will be the annual cost of the activity. For those critical habitat units where the undiscounted calculated costs over the 20-year period are equal in each year, the annualized values are identical for both the 3 percent and 7 percent discount rate. Additionally, if the undiscounted annual costs are equivalent but occur in some pattern over the 20-year period (i.e., they are incurred every other year), the difference in annualized values between discount rates will be very minor. In these cases, with rounding applied, the values are identical in the results table.

(14) *Comment:* One state comment questioned the selection of the discount rate. The comment noted that the Office of Management and Budget's regulatory impact analysis primer includes guidance on the use of a lower discount rate (1 percent to 3 percent) when intergenerational effects are of concern.

Our response: The discount rates of three and seven percent used in the economic analysis are in accordance with the Office of Management and Budget's guidance on the conduct of regulatory impact analysis. The use of a lower discount rate, such as one percent, may be applicable when intergenerational benefits or costs are expected to accrue from regulation. With a 20-year timeframe, we do not consider this analysis to be capturing intergenerational impacts. In the intergenerational discounting literature, a minimum time horizon for considering intergenerational effects is generally 50 years. However, in response to a request received in this comment, we performed a sensitivity analysis using the one percent discount rate. The total present value cost employing a one percent discount rate is $690,000, approximately 13 percent greater than the total, present value cost determined using a three percent discount rate and 35 percent greater than the cost determined using a seven percent discount rate.

(15) *Comment:* Benefits should have been quantified in the economic analysis to allow for a direct comparison between monetized costs and benefits. Further, the unavailability of existing studies specific to the species considered in the analysis should not preclude the estimation and quantification of benefits.

Our response: As described in Chapter 5 of the draft economic analysis, monetization of benefits requires information on how the incremental conservation efforts described in the report affect the recovery probability of either the Texas golden gladecress or Neches River rose-mallow and findings regarding the public's willingness-to-pay for the incremental change in recovery for these species, or similar species. No such studies currently exist and such primary research is outside the scope of the analysis.

(16) *Comment:* One state comment suggested that while the study area is defined in the draft economic analysis to be ''all lands proposed for critical habitat designation,'' the monetization of economic impact should be across the entire range of the species.

Our response: Because the draft economic analysis quantifies the

incremental impact of critical habitat designation, the geographic scope of the analysis is limited to the area over which the critical habitat rule may affect projects or activities.

(17) *Comment:* Specifically with regard to transportation and utility projects, there are trickle-down costs. Conducting section 7 consultations adds costs to projects and these costs may get passed along to consumers.

Our Response: Section 4.2 of the draft economic analysis evaluates impacts on transportation activities, and detailed discussions with TXDOT informed the quantitative and qualitative assessment of these impacts. Based on expected activities and consultations, the incremental effect of designating critical habitat on transportation projects was found to be modest. Over the 20-year period of the study, we project incremental costs for transportation activities to be $66,000 for the Texas golden gladecress critical habitat and $15,000 for the Neches River rose-mallow habitat. For utility projects, an overall undiscounted cost to the three pertinent electric cooperatives of $25,300 over the 20-year timeframe of the study was calculated and the analysis did not anticipate these costs to influence the utility rates charged to customers (for further discussion see Our Response to Comment 24 below).

Public Comments

(18) *Comment:* One commenter requested clarification regarding lack of access being granted to their site. The Camp Olympia landowner stated that they have been at the site since the 1970's and access has never been requested nor denied. This landowner has also searched his property for Neches River rose-mallow and not found it. Two major hurricanes and a severe drought have caused major habitat alterations including a loss of trees and plants. The commenter believes this unit should not be considered for critical habitat or the species for listing.

Our Response: We stated in the proposed rule that we considered the Camp Olympia site to be an extant population (i.e., occupied). We based this on the best scientific and commercial information available at the time of listing, which was the documented presence of the Neches River rose-mallow at this site based on voucher specimens collected in 1977 and in 1978. The best scientific and commercial information available indicates that the species is likely to persist because the habitat has not been altered such that it would no longer support the species or that the population had been extirpated since 1978. The site has only been visited by a species expert twice since 1978.

Although the site was surveyed by Klips in 1992 and Warnock in 1993 without success, leading Warnock (1995, p. 6) to list the site as extirpated or historical, there is reason to believe that the plants may still be there (See Our Response to Comment 9). In addition to site conditions that can change with fluctuations in water level, resulting in shifting of the plants' location, Warnock's 1993 site survey was conducted from the water (canoe), not from the land, and the presence of the Neches River rose-mallow may have been hidden from view by dense vegetation at the water's edge. The site could have been overgrown, the plant may not have been in bloom at the time of the survey, and environmental factors could have hindered the production of flowers at the time of the survey. Although the landowner referred to changes in habitat conditions at the Camp Olympia site due to hurricanes and drought, using Google Earth satellite imagery to compare available habitat from 1995 and 2011 we could not ascertain habitat alteration that would make sites unsuitable for the Neches River rose-mallow. Consequently, the best scientific and commercial data available is still the 1978 record from the TXNDD and we considered this site to be occupied.

The extent to which the occupancy of this unit is in question, we have alternatively designated Units 2, 9, and 11 under section 3(5)(A)(ii) of the Act because we consider them to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including these units in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species.

(19) *Comment:* As it currently is drawn, the area being proposed for critical habitat unit 4 (SH 204 ROW or Mud Creek) is only a small portion of a historically much larger piece of Neches River rose-mallow habitat. The site has dwindled over time due to mowing and herbicide practices by private landowners.

Our response: The area not designated as critical habitat does not have an open canopy providing partial to full sun exposure. The Neches River rose-mallow is typically found in an open canopy (Warnock 1995, pp. 11, 13), but plants also grow in partial sun (as is the case at SH 204 ROW). However, sunlight is needed for blooming as the blooming period may only last 1 day (Snow and Spira 1993, p. 160).

(20) *Comment:* One commenter questioned the validity of including the introduced Neches River rose-mallow critical habitat unit at the Mill Creek Gardens, in Nacogdoches County. Although the site may be the only remaining pure site for the Neches River rose-mallow, seedlings and seeds have been used for other reintroduction sites. Also, this site is along an emergency spillway of a dam where the soil is much different than any of the natural populations. Another commenter indicated that the four natural populations of Neches River rose-mallow need protection, but does not believe the remaining seven sites of the Neches River rose-mallow should be designated as critical habitat. The Mill Creek site is in the emergency spillway of an 8-acre lake, and the site bears little resemblance to any natural site, specifically the soil. The only management since 1995 has been annual mowing or an occasional burn.

Our response: For the purpose of designating critical habitat for the Neches River rose-mallow, we included all currently occupied populations sites, as required by section 3(5)(A)(i) of the Act. We defined occupied areas as sites where Neches River rose-mallow had been documented based on the most recent field surveys that were available to us as of 2011, including recent reports and survey information from the Davy Crockett NF, TPWD, TXDOT, and observations by species experts (Warnock 1995, p. 6; Miller 2011, pers. comm.; TXNDD 2012a, entire). Based on this information we determined that there are 11 currently occupied areas for the Neches River rose-mallow in Trinity, Houston, Cherokee, Nacogdoches, and Harrison Counties in East Texas. Although two of these areas have not been verified since the 1980s and mid-1990s, the best scientific and commercial data available did not show these sites to have been modified such that they no longer had the physical or biological features essential for the Neches River rose-mallow, therefore we considered them presently occupied. Populations that were successfully introduced were included with the natural populations because the introduced sites are considered to have at least one of the primary constituent elements required by the species and because the species is still present at the site. The primary constituent elements of the Mill Creek Gardens site include its location within Mill Creek (part of the Angelina River basin), open-canopy habitat with full sun, and the presence at the site of alluvial, hydric soils.

(21) *Comment:* Many comments were received expressing concern about the

negative impact the critical habitat designations (particularly the rose-mallow critical habitat unit 4) may have on the Lake Columbia water supply project in Cherokee County and the future water supply of the region. Most prominently, it was proposed that the costs incurred by the Angelina and Neches River Authority (ANRA) and local communities as a result of the critical habitat designation were either not considered or were estimated to be far lower than ANRA projects for itself.

Our Response: As documented in section 4.5 of the draft economic analysis, water management activities were evaluated for the Neches River rose-mallow. Critical habitat unit 4, located downstream from the proposed reservoir, is considered to be occupied for the purposes of critical habitat. Thus, a consultation with the Army Corps of Engineers is expected to take place regardless of critical habitat designation. In addition, the Service anticipates that critical habitat designation will not generate any requests for project modifications above and beyond what would already be recommended due to the presence of the species. As such, the costs associated with critical habitat for this unit are those incremental administrative costs of considering critical habitat during the consultation. Angelina and Neches River Authority is anticipated to incur $2,080 in costs for the additional consideration of critical habitat as a third party participant during the formal consultation process between the Service and Army Corps of Engineers. The Army Corps of Engineers does not anticipate any other future section 7 consultations for the Neches River rose-mallow within the timeframe of this analysis (Industrial Economics 2013, pp. 4–11).

(22) *Comment:* The threat to the SH 204 ROW site (unit 4) by ''water management strategies'' is speculative. There are no scientific data that demonstrate the level of hydrological change that would impact the Neches River rose-mallow, therefore the Service is speculating about this threat.

Our Response: Some degree of hydrologic change has been seen at most of the Neches River rose-mallow sites, with the exception of some private land sites for which information is lacking. The Neches River rose-mallow likely requires high precipitation and flowing water or flood events to disperse seed (Warnock 1995, p. 20; Scott 1997, p. 8; Reeves 2008, p. 3), and although the Neches River rose-mallow is adapted to persist during dry portions of the year, a complete lack of water can diminish seed production, and affect range expansion and genetic exchange. Since Neches River rose-mallow is so water-dependent, hydrological changes can have significant impacts on the species.

Regarding the SH 204 ROW site (unit 4) in particular, the best scientific and commercial data available suggests that the construction of the Lake Columbia reservoir project will divert downstream water, thereby potentially dewatering the Neches River rose-mallow population site. Project details are still being worked out by involved agencies, therefore, we do not know the amount of water that is projected to remain flowing to this site or if future water management practices or decisions will allow for seasonal flooding of the site. Please reference the ''Hydrological Change'' section of this rule for more information on this project and projected hydrological changes to this and other sites.

(23) *Comment:* The Service did not completely ascertain, or was unwilling to admit to, the total economic impact to rural East Texas counties and the State of Texas in general. Water is a critical issue, and the commenter expressed their belief that the designations could seriously restrict construction of critical water resource projects and possible transport of water through pipelines.

Our Response: The only water supply project brought to the Service's attention was the proposed Lake Columbia project (Industrial Economics 2013, pp. 4–11), which is a water supply reservoir. The Service addressed this project in our proposed rule, final rule, and economic analysis. As we stated in the proposed rule, the designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

(24) *Comment:* Two electric cooperatives operating in East Texas expressed concern about the designation of critical habitat increasing costs for the utility, which would result in higher electricity rates for local users.

Our Response: The U.S. Department of Agriculture's Rural Utility Service may fund project work undertaken by electric cooperatives. This constitutes a Federal nexus triggering consultation under the Act on these projects that may affect listed species and critical habitats. For each 4-year workplan set forth by the three cooperatives serving the areas in which critical habitat is proposed, we anticipated an informal section 7 consultation will occur. For the Neches River rose-mallow, we assume that the costs of these consultations are related to the presence of the plant and the critical habitat designation will generate only limited administrative effort. For the Texas golden gladecress, we assume that the plant will not be present and therefore the incremental costs associated with critical habitat are both: (1) Administrative costs and (2) costs associated with project modifications proposed during the consultation. As described in section 4.6 of the draft economic analysis, based on our conversations with RUS, we expect the utility projects will be able to avoid impacts to critical habitat relatively easily. Project modifications include modifying clearing and maintenance techniques, and adjusting new pole placement to avoid digging into glade substrate. Because the costs associated with these project modifications are anticipated to be very minor, they were not quantified in the analysis. Overall, we calculated an undiscounted cost to the three electric cooperatives of $25,300 over the 20-year timeframe of the study, or approximately $1,265 per year. We do not expect these costs to influence the utility rates charged to customers.

In conclusion, while three small electric cooperatives are anticipated to incur costs as a result of the designation of critical habitat for Texas golden gladecress and Neches River rose-mallow, the costs are not expected to result in significant impacts to these entities (Industrial Economics 2013, p. A–2). See Attachment A and pages 4–11 through 4–13 of the draft economic analysis for a detailed description of our analysis.

(25) *Comment:* Several commenters expressed the need to include impacts of critical habitat designation on natural gas exploration and development in the economic analysis, concerns about additional consultation and permitting requirements for future projects that require a Federal permit or otherwise have a federal nexus causing delays in operations. Other comments thought the Service's draft economic analysis of the critical habitat designation failed to identify oil and gas development as an economic activity that may be affected by the designation of critical habitat for the Texas golden gladecress.

Our Response: The Service does identify natural gas exploration, production, and distribution (pipelines) as current and ongoing threats to the remaining populations of Texas golden gladecress. Texas golden gladecress sites could be directly impacted by site clearing or indirectly impacted by altering the hydrology. As stated in the proposed rule, the Simpson Farms Texas golden gladecress population, located 6 mi (9.7 km) east of the city of Nacogdoches, was eliminated by a natural gas pipeline that was installed sometime between August 2010 and October 2011. The population was estimated to be approximately 200 ft^2 (18 m^2) in size, and the loss of plants at this site represented a loss of approximately 65 percent of all the known plants.

The entire known distribution of Texas golden gladecress is underlain by the Haynesville Shale formation (also known as the Haynesville-Bossier), recently recognized as a major natural gas source for the United States. By September 2011, as many as 1,500 wells had been drilled on the Haynesville Shale with many more anticipated, along with perhaps another 10 years of active drilling on this formation (Murphy 2011, pp. 2–3). Exploration and production of natural gas and oil is anticipated to continue in this area for at least the next decade.

Section 4.7 and Exhibit 3.1 of the final economic analysis suggested that a Federal nexus arises for interstate oil pipelines because of oversight by Federal Energy Regulatory Commission. However, subsequent research determined that management of interstate oil pipelines is not within the scope of Federal Energy Regulatory Commission's operations. Therefore, for oil exploration and development on private land in Texas, no Federal nexus necessitating consideration of critical habitat exists. For this reason, we assume that the designation of critical habitat will have negligible impact on oil exploration and development. The information regarding oil pipelines in the final economic analysis has been corrected to reflect this change.

The Federal nexus for natural gas activities is through Federal Energy Regulatory Commission, the agency responsible for permitting interstate natural gas pipelines. According to Federal Energy Regulatory Commission data, as of February 2013, there were no pending major interstate pipeline projects in East Texas. Furthermore, the white bladderpod, a federally-listed species since 1987 and co-located with the Texas golden gladecress, has no consultation history for natural gas pipeline activity. We have added this information to section 4.7 of the final economic analysis.

The Texas Railroad Commission has detailed information on all existing pipelines, but the agency has no way to predict future routes for new pipelines or wells; they are limited to location data found within permit applications (Nunley 2011, pers. comm.).

Further, the draft economic analysis identifies the baseline protection afforded through listing under the Act for the Texas golden gladecress and the Neches River rose-mallow and their habitats. This existing regulatory baseline provides the context for the evaluation of economic impacts expected to result from critical habitat designation. The draft economic analysis does not evaluate the threats to a species, it evaluates the incremental cost associated with additional conservation measures required due to the designation of critical habitat. The draft economic analysis determined that the designation of critical habitat for the Texas golden gladecress is likely to result in relatively minor administrative impacts. In addition, minimal project modifications are likely to result from the designation of critical habitat. These minor impacts are attributed primarily to very few projects with a Federal nexus being envisioned within the critical habitat designation for the plant. The primary activities expected to result in section 7 consultations and trigger project modifications are routine transportation projects and utility-related activities. To the extent that future economic activity is uncertain, this analysis may have failed to identify projects or land use alterations that may occur within habitat. However, given the stated conditions, project modifications due to critical habitat designation are unlikely for Neches River rose-mallow and minimal in cases where they do occur for Texas golden gladecress.

No small entities are likely to be significantly affected by the designation of critical habitat. In addition, we do not anticipate measurable impacts to the supply, distribution, or use of energy (Industrial Economic 2013, p. ES–5). Pursuant to Executive Order No. 13211, ''Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use,'' issued May 18, 2001, Federal agencies must prepare and submit a ''Statement of Energy Effects'' for all ''significant energy actions.'' The purpose of this requirement is to ensure that all Federal agencies ''appropriately weigh and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy.'' (Industrial Economics 2013, p. A–3). For the Neches River rose-mallow and the Texas golden gladecress, minimal modifications to future energy-related economic activities are anticipated to result from the designation of critical habitat (Industrial Economics 2013, p. A–4).

In summary, oil and gas production and distribution do pose a threat to the Texas golden gladecress as we identified in the proposed rule and this final rule. Specifically, the Chapel Hill population may still be affected by future pipeline construction. The draft economic analysis does not evaluate the threats to a species, it evaluates the incremental cost associated with additional conservation measures required due to the designation of critical habitat.

(26) *Comment:* One commenter noted the existence of lignite mining activities in the vicinity of the critical habitat designation, particularly the proximity of critical habitat unit 2 for the Neches River rose-mallow to a sedimentation pond constructed by the Sabine Mining Company. Other commenters noted that in the economic analysis there was not any discussion of lignite coal mining in this region of Texas. The Sabine Mining Company alone produces more than four million tons of coal per year, and there are several other coal mines in east Texas, contributing a combined total state production of some 40 million tons per year. According to the Office of Management and Budget a ''significant adverse effect'' may occur if the regulatory action under consideration results in reductions of coal production of more than five million tons per year. An additional concern was expressed that mining operations, including those for glauconite and other materials that counties buy for road maintenance, will be affected and that all increased costs will get passed along to counties as the purchasers, and ultimately to the tax payers.

Our response: Currently, there are no active mines in the vicinity of the critical habitat; a sediment pond in Unit 2 is associated with a mine that has been in reclamation since the 1990s. However, a lignite belt is noted to exist throughout East Texas, including in the counties in which the critical habitat is designated. Because mines on private land are managed by the Railroad Commission in Texas, for a Federal nexus to occur with lignite mining activities, the critical habitat designation would need to overlay Federal mineral rights. The Bureau of Land Management confirmed that no Federal mineral rights overlap the critical habitat area. This information

has been included in section 4.7 of the economic analysis.

Additionally, our final economic analysis on April 16, 2013 (78 FR 22506–22510) identified and analyzed the potential economic impacts of designating critical habitat for the Texas golden gladecress and the Neches River rose-mallow. The economic analysis addressed the requirements of Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use, May 18, 2001; as well as Executive Orders 12866 (as amended by 13563), 13211, and 12630, the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), and the Unfunded Mandates Reform Act (UMRA). The economic analysis determined that no small entities are likely to be significantly affected by the designation of critical habitat. In addition, we do not anticipate measurable impacts to the supply, distribution, or use of energy. See Appendix A of the Final draft economic analysis for further information.

(27) *Comment:* The listing and critical habitat will cause undue economic harm by limiting development opportunities in that region, threaten local jobs, and be too costly.

Our Response: As discussed in the Executive Summary of the draft economic analysis, impacts of the critical habitat designation are expected to be relatively minor and mostly administrative in nature. The administrative costs and project modifications resulting from critical habitat designation are not expected to affect the type or intensity of economic activities occurring in the region. As such, we do not predict impacts to local jobs. See Our Response to Comments 11 and 17 in the Comments from States section, as well as Comments 21 and 23 above in Public comments.

As documented in section 4.3 of the analysis, we do not forecast any restrictions on development or other major land use regulations as a result of the critical habitat designation that might influence private property values. In section 2.3.2, the report does note that public attitudes about limits or restrictions that critical habitat may impose can cause real economic effects to property owners, regardless of whether such limits are actually imposed. As the public becomes aware of the true regulatory effects imposed by critical habitat, the impact of the designation of property markets may decrease. Furthermore, the study cited in this comment did not identify statistically significant effects of the designation on land values outside of urban growth areas, limiting its applicability to this particular designation.

(28) *Comment:* Commenters expressed concerns that critical habitat designations added to the regulatory burden on businesses and private landowners in the area at issue, and such designations, if made without a proper basis, would contravene the President's Executive Order 13563, which directs Federal agencies to identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends. They indicated that it would be an inappropriate use of Service's discretion to place regulatory burdens on development in the areas in question, when the agency has demonstrated neither that the proposed listings and designations are justified nor that such listings and designations would be the least burdensome tool for achieving the Service's goals. Commenters believe projects with a Federal nexus could be delayed or cancelled in East Texas counties due to critical habitat designation. They indicated the belief that any benefits associated with the proposed designations were outweighed by the potential for negative economic impacts.

Our response: Executive Order 13563 requires agencies to tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives. The Service may exclude any area from critical habitat if we determine that the benefits of such exclusion outweigh the benefits of specifying such areas as part of critical habitat unless we determine that the failure to designate such area as critical habitat will result in the extinction of the species concerned. The Executive Order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. The Executive Order 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

For projects occurring within the critical habitat designation for the Neches River rose-mallow, it is unlikely that critical habitat designation will generate project delays or cancellations. As discussed in section 4.1 of the draft economic analysis, any consultations or recommendations for project modifications that may result in project delays are expected to occur due to the presence of the plant regardless of whether critical habitat is designated. Project modifications due to critical habitat for the Texas golden gladecress are generally expected to generate only minor additional costs associated with project implementation. The consultation process and implementation of associated recommendations are not expected to generate substantial project delays or result in cancellation of projects.

(29) *Comment:* The Service incorrectly assumed the generally described site location in Harrison County where the Neches River rose-mallow was collected in 1980 had not been disturbed. Significant disturbance has taken place in that area. The Sabine Mining Company began development of the South Hallsville No. 1 Mine, a large lignite coal mine, in 1984, and has been operating continuously since then. The second largest proposed critical habitat site matches the footprint of a sedimentation pond on one of the state's major coal mines. The shoreline of a large sedimentation pond constructed by the mining company in the early 1990's is the exact boundary of the proposed critical habitat unit 2 for the Neches River rose-mallow.

Our response: In regard to the location of the Harrison County site see Our Response to Comment 9. New information provided by the commenter confirms that the Harrison County critical habitat unit overlays a sedimentation pond of an old lignite (type of coal) mine that is no longer active (Lang 2013, pers. comm.). The pond's edge still provides at least one of the primary constituent elements needed by the Neches River rose-mallow. Consequently, we consider this site to meet the definition of critical habitat for the Neches River rose-mallow.

(30) *Comment:* The draft economic analysis did not monetize the costs of all the project modifications that were recognized to be necessary.

Our response: Executive Order 12866 specifies that quantification of costs should be performed to the extent feasible. As discussed in sections 4.2 and 4.6 of the draft economic analysis, we do not quantify the potential impacts of the designation in two instances. The cost of altering vegetation clearing techniques at the base of utility poles was expected to be minor and is therefore described qualitatively. In addition, the draft economic analysis describes the potential costs to driver safety associated with a narrower roadway shoulder. These costs would be

net of the savings associated with constructing a narrower shoulder. Absent information on the extent to which the reduced roadway shoulder size may increase accident or injury, we describe this cost qualitatively.

(31) *Comment:* The draft economic analysis did not provide a complete or accurate picture of the economic impact that would be caused by the proposed listing.

Our response: As described in section 2.1 of the draft economic analysis, the analysis is focused on the incremental economics impacts of the designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow. This report does not attempt to capture the economic impacts of the listings of the two species. The Service is required to use the best scientific and commercial data available in determining the threatened or endangered status of a species. For critical habitat designation, the Service is required to use the best scientific and commercial data available, after taking into consideration the probable economic impacts and other impacts of the designation on proposed or ongoing activities. The Service evaluated the probable incremental economic impact of the designation of critical habitat through its economic analysis. The cost of listing the species are in the baseline and therefore not presented.

(32) *Comment:* One comment suggested that potential incremental effects identified in ''Appendix B: The Incremental Effect Memorandum for the draft economic analysis for the proposed rule to Designate Critical Habitat for Texas golden gladecress and Neches River rose-mallow'' of the draft economic analysis associated with activities that may affect the primary constituent elements (PCEs) for the Neches River rose-mallow without affecting the plant were not quantified in the analysis.

Our response: As described in Appendix B, the purpose of the incremental effects memorandum is to provide information to serve as a basis for conducting an economic analysis of the proposed critical habitat. While it serves as the basis, subsequent discussions with the Service and other Federal agencies directly informs the analysis. Through such discussions, we did not identify an instance of the situation outlined in this comment for the Neches River rose-mallow. For this reason, these example incremental effects were not quantified in the analysis.

(33) *Comment:* One comment stated that the estimated costs of consultation likely underestimate administrative costs and fail to reflect the true real-world costs associated with project delays caused by section 7 consultation. Another comment notes that the administrative consultation costs presented in Exhibit 2–3 represent old data.

Our response: The administrative costs assigned in the study were developed from data from the Federal Government Schedule Rates, Office of Personnel Management, and a review of consultation records from several Service field offices across the country. While the estimates of time spent in section 7 consultations were derived from interviews with agencies and review of consultation records in 2002, the cost of time spent is based on current data describing the Federal government's 2012 hourly pay rates, adjusting for overhead and benefits. As such, we consider these administrative costs a reasonable approximation of the administrative costs of consultation. As stated in the response to the comment on time delays, we do not anticipate this rule will generate measurable time delays.

(34) *Comment:* One commenter stated that the draft economic analysis' reliance solely on administrative costs to quantify impact does not present a comprehensive appraisal of the economic impact of the proposed designation.

Our response: The draft economic analysis presents the probable incremental economic impact of the designation of critical habitat for each species. Use of an incremental analysis is the only logical way to implement the Act. To understand the difference that designation of an area as critical habitat makes, one must compare the hypothetical world with the designation to the hypothetical world without the designation. For this reason, the Service compares the protections provided by the designation to the protections without the designation. This methodology is consistent with the general guidance given by the Office of Management and Budget to executive branch agencies as to how to conduct cost-benefit analyses.

Section 2.3.2 of the final economic analysis describes that the economic analysis considers multiple categories of potential impacts, including administrative costs and costs of project modifications, which may be implemented to avoid adverse modification of critical habitat. For projects for which critical habitat designation is not expected to result in project modifications, or otherwise affect economic activities, we anticipate that the costs of the rule are limited to administrative costs.

(35) *Comment:* The draft economic analysis should include the impacts the critical habitat designation would have on private landowners.

Our Response: When prudent and determinable, the Act requires the Service to designate any habitat, which is considered to be critical habitat concurrently with making a determination that a species is an endangered or threatened species. Critical habitat is defined in section 3 of the Act: the specific areas within the geographic area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (a) essential for the conservation of the species and (b) which may require special management considerations or protection. The 11 occupied sites contain either one or more physical or biological feature essential to the Neches River rose-mallow which may require special management considerations or protection, as do the four occupied Texas golden gladecress sites. A final designation of critical habitat is based on the best scientific and commercial data available, after taking into consideration the probable economic impacts and other impacts of the designation on proposed or ongoing activities.

As discussed in section 2.3.2 of the draft economic analysis, private landowners may be affected by critical habitat if they are party to a consultation and experience administrative impacts or bear costs of project modifications. Activities taking place on private land that do not involve a Federal nexus are unlikely to be directly affected by critical habitat; however, section 2.3.2 of the draft economic analysis additionally recognizes the potential for private landowners to be indirectly affected by critical habitat designation, for example in the case that the designation generates uncertainty about restrictions on future land use or triggers changes in state or local management of activities. As presented in section 4.3 of the draft economic analysis, however, we expect costs to private landowners in this case will be limited to the administrative costs associated with technical assistance for land management by Partners for Fish and Wildlife. It is important to note that this technical assistance is offered to willing landowners but is not required.

(36) *Comment:* One commenter noted that if the private landowner does not have restrictions on the plants on their property, then there are no measures that would prevent the landowner from

destroying or further endangering a species.

Our response: The commenter is correct. The Act does not prohibit destroying or adversely modifying critical habitat unless such activities involve an endangered species on Federal land, there is a Federal nexus, or if the action occurs in violation of State laws. If a person wishes to develop private land, with no Federal jurisdiction involved, in accordance with State law, then the potential destruction or adverse modification of critical habitat does not violate the Act. Critical habitat receives protection under section 7 of the Act through requiring Federal agencies to consult with the Service to ensure that action they carry out, fund, or authorize does not result in the destruction or adverse modification of critical habitat. If there is no Federal nexus, the critical habitat designation of private lands itself does not restrict any actions that destroy or adversely modify critical habitat.

(37) *Comment:* Several comments were made addressing potential adverse impacts on property values due to the critical habitat designation.

Our response: As documented in section 4.3 of the draft economic analysis, we do not forecast any restrictions on development or other major land use regulations as a result of the critical habitat designation that might influence private property values. In section 2.3.2 of the draft economic analysis, the report does note that public attitudes about limits or restrictions that critical habitat may impose can cause real economic effects to property owners, regardless of whether such limits are actually imposed. As the public becomes aware of the true regulatory effects imposed by critical habitat, the impact of the designation of property markets may decrease. Furthermore, the study cited in this comment did not identify statistically significant effects of the designation on land values outside of urban growth areas, limiting its applicability to this particular designation.

(38) *Comment:* One commenter questioned the benchmarks for designating species with critical habitat and how these areas are determined.

Our response: Under the Act, any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable, using the best scientific and commercial data available and primary and original sources of information. Critical habitat is defined in section 3 of the Act as: (1) The specific areas within the geographical area occupied by the species, at the time it is listed, on which are found the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. See the ''Areas Occupied at the Time of Listing'' and ''Areas Unoccupied at the Time of Listing'' sections for both species in this final rule for further information.

(39) *Comment:* One comment expressed concern that the economic analysis was incomplete because citations for discussions did not list the names of all the Service staff and only one state agency. This comment also noted that the document did not provide a list of those individuals consulted for information.

Our response: As described in section 4.1, we contacted multiple Federal agencies and applicable state agencies that may permit, fund, or carry out activities within the proposed critical habitat designation. In response to public comments, we contacted additional agencies in order to confirm the status of a potential activity over the timeframe of the study. The final economic analysis will include these additional individuals. All individuals contacted are referenced by footnote in the economic analysis.

(40) *Comment:* In response to the September publication of the proposed rule, multiple commenters requested an extended comment period.

Our Response: We consider the comment periods described in the ''Summary of Comments and Recommendations'' of this final rule to have provided the public a sufficient opportunity for submitting both written and oral public comments. In addition, the Act requires the Service to publish a final rule within 1 year from the date we propose to list a species. This 1-year timeframe can only be extended if there is substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determination or revision concerned, but only for 6 months and only for purposes of soliciting additional data. Based on the comments received and data evaluated there is not substantial disagreement regarding the sufficiency or accuracy of the data. We also reopened the comment period for the draft economic analysis and for the proposed rule.

(41) *Comment:* One commenter indicated concern that designation of critical habitat will impose restrictions upon people's freedom of access to Federal lands (the Davy Crockett NF specifically).

Our response: Neither listing nor designation of critical habitat for the Neches River rose-mallow of any area on the Davy Crockett NF will restrict public access of this land. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands.

Summary of Changes From Proposed Rule

Our analysis or conclusions did not result in any substantial changes to the final rule from what was proposed.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies

ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features for the Texas Golden Gladecress

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the specific physical or biological features essential for Texas golden gladecress from studies of this species' habitat, ecology, and life history as described in the Critical Habitat section of the proposed rule to designate critical habitat published in the **Federal Register** on September 11, 2012 (77 FR 55968), and in the information presented below. Additional information can be found in the final listing rule published today elsewhere in the **Federal Register**. We have determined that Texas golden gladecress requires the following physical or biological features:

Space for Individual and Population Growth and for Normal Behavior

Based on all documented occurrence records, the Texas golden gladecress is endemic to glade habitats in northern San Augustine and northwest Sabine Counties, Texas, where it is a habitat specialist, occurring only on outcrops of the Weches Geologic Formation (Mahler 1987, p. 240; George and Nixon 1990, p. 120; Poole *et al.* 2007, pp. 286–287). The gladecress grows only in glades on shallow, calcium-rich soils that are wet in winter and spring. These occur on ironstone (glauconite or green-stone) outcrops (Poole *et al.* 2007, p. 286). The Texas golden gladecress occurs in open, sunny, herbaceous-dominated plant communities in Weches glades; in some cases in areas that also support another federally listed plant, the white bladderpod (*Lesquerella pallida*) (Bridges 1988, pp. II–7, II–35, and II–35 supplement). Unlike the white bladderpod, which can grow throughout the glade, the gladecress is restricted to the outcrop rock faces within the glades where it occurs (Nemec 1996, p. 8). The Texas golden gladecress shows a tight association with the Weches Formation and associated soils (Singhurst, 2011a, pers. comm., p. 3). The known Texas golden gladecress occurrences are all found on shallow, gravelly soils or almost bare bedrock overlying Trawick, Bub, or Nacogdoches soils.

The Weches Glades form a small patch system of habitats, endemic to the outcrops of marine sediment and glauconitic clays that occur primarily in Nacogdoches, San Augustine, and Sabine Counties (Nature Serve 2009, p. 6). Surface exposures of the Weches Formation are usually on slopes (due to erosion) and typically are small; 16.4–65.6 ft (5–20 m) in width, and generally not exceeding 328 ft (100 m) in length (George and Nixon 1990, p. 118). The average width of the Weches outcrop region varies from 2–5 mi (3.2–8 km) (Sellards *et al.* 1932 in Diggs *et al.* 2006, p. 56) and encompasses the route of SH 21. All known Texas golden gladecress populations occur, or formerly occurred, within 1 mi (1.6 km) of SH 21. Of these populations, three sites where plants have been confirmed as recently as 2012 remain: Caney Creek Glades Site 1 in San Augustine County, just east of the town of San Augustine; the Chapel Hill Site in San Augustine County, adjacent to County Road 151; and adjacent to SH 21 south of the town of Geneva, Sabine County. A fourth site, Caney Creek Glades Site 7, is also considered extant because there is no evidence that the habitat has been destroyed, however, the existence and size of the Texas golden gladecress at this site has not been verified since 1988 because the site is on private property to which access has been denied. Historically, populations in the closest proximity to each other were part of the Caney Creek Glade Complex that contained five of the eight known sites. This entire complex was located within an area that did not exceed 1 mi (1.6 km) from the most northern to most southern plant occurrences, and extended less than 0.32 miles (0.53 km) from east to west. The Chapel Hill and Geneva sites were outliers to the Caney Creek Complex, located 4.5 mi (7.24 km) and 11.4 mi (18.3 km), respectively, to the southeast. Multiple glades in close proximity to one another, as exemplified by the Caney Creek Glade Complex, may have facilitated cross fertilization between populations, enhancing genetic diversity, and perhaps providing space for population expansion.

Potential exists for other areas within the range of the Texas golden gladecress to support glade complexes. Singhurst (2012b, pers. comm.), using aerial photography and maps of geology and soils, has identified clusters of potential glade sites in additional areas within the Weches Formation within 1 mi (1.6 km) to the north and south of SH 21 as it traverses San Augustine County, as well as into Sabine County. We are also aware that areas adjacent to the Chapel Hill and Geneva sites have a high likelihood of suitable habitat.

Due to loss, degradation, and fragmentation of habitat, optimal glade size or density of glade complexes needed to support long-term survival of Texas golden gladecress is not well understood, but monitoring of the extant sites between 1999–2009 showed that the Texas golden gladecress could persist on small, disjunct sites where it is able to grow and reproduce, at least in the short term. Based on the best available scientific and commercial information, a better model of a healthy population and habitat site may be found by looking at the historic Caney Creek Glade Site 6, which supported the largest population ever documented. This former site was contained within an area of approximately 10 ac (4 ha) and supported thousands of plants until the mid–1990's, when it was destroyed by mining excavation. This glade complex consisted of long, sheeted openings that presented a patchwork appearance of soil, rock, and glades (Singhurst 2012d, pers. comm.). This site likely represented ideal special conditions for this species because it supported a healthy and robust population.

The best available scientific and commercial information regarding gene flow between Texas golden gladecress populations is that seed dispersal may be limited. Seeds appear to fall to the ground near the parent plant (Singhurst 2011c, pers. comm., p. 4) and probably stay in place unless water movement, such as flooding, carries them to other suitable habitats. The Weches outcrops occur in a scattered fashion across the landscape with habitat that is unsuitable for Texas golden gladecress lying between outcrops.

Pollinators specific to Texas golden gladecress have not been identified. Native bees in the Families Andrenidae and Halictidae (sweat bees), including the species *Halictus ligatus* (sweat bee), were observed carrying pollen from *Leavenworthia crassa* (fleshyfruit gladecress) and *L. stylosa* (cedar gladecress) in northern Alabama (Lloyd 1965, pp. 106–115). Although representatives of these bee families are found across eastern Texas (Warriner 2012b, pers. comm.), there is no documentation of them visiting Texas golden gladecress. Busch and Urban (2011, p. 18) indicated the efficacy of these pollinators has not been studied in *Leavenworthia.* Texas golden gladecress is believed to be self-compatible and may not rely solely on pollinators for fertilization (see Biology section). Based on this information, close proximity of glade outcrops to one another may help to facilitate cross pollination and seed dispersal.

Therefore, based on the information above, we identify glauconite exposures (outcrops) of the Weches Geologic Formation, found within Weches glades, as an essential physical feature for the species' continued existence. Although these individual exposures can be small in size and scattered throughout a glade or glades, ideally the glades will occur in multiples (a complex).

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

The geology and soils of Texas golden gladecress sites are unique in East Texas, and the species shows a tight association with the Weches Formation and associated soils (Singhurst, 2011a, pers. comm.). The Weches Formation is characterized by the mineral glauconite and contains glauconitic clays, calcareous marls, rich marine fossil deposits, and mudstone (George and Nixon 1990, pp. 117–118). In some areas, leaching of the soluble ingredients in the glauconite has concentrated iron in ironstone (iron-bearing limonite). The Weches Formation affects the local topography

and vegetation, with cap hills and escarpments where the erosion-resistant ironstone layers occur, and more rolling topography where ironstone is not present (Diggs *et al.* 2006, p. 56).

The Weches outcrops create limited areas of relatively thin alkaline soils in a region of mostly sandy soils (USFWS 1992, pp. 3–4) resulting in natural glade communities on the shallow, seasonally saturated, but frequently dry soils (Bezanson 2000 in Diggs *et al.* 2006, p. 56). Soils associated with Weches glades are shallow, rocky, and basic in pH (alkaline), inhibiting the presence of woody species (Nature Serve 2009, p. 6). Soils underlying known Texas golden gladecress sites appear to be inclusions in the Nacogdoches, Trawick, or Bub soils series (U.S. Department of Agriculture 2009, entire). George (1987, p. 18) found that the soil profile of three Weches outcrops had a surface layer of sandy loam or sandy clay loam with impermeable glauconite clay at a depth of about 19.7 inches (50 cm). Measurements of soil pH ranged from 7.6 to 8.1 (George 1987, p. 18). Weches soils contain exceptionally high levels of calcium (2,500–6,000 parts per million (ppm)) from fossilized shells, as well as high levels of potassium (170–250 ppm) and magnesium (250–400 ppm). The basic pH at these sites results from dissolution of the calcareous component of the rich marine fossil fauna of the Weches Formation (George 1987, p. 47). These conditions produce a harsh, variable environment that becomes saturated and seepy in cool moist months and during rainy seasons, but that dries out, becoming parched and hard, during hot summer months (USFWS 1992, pp. 3–4). *Leavenworthia* species are dormant by early summer, helping them to survive the dry period as seed; this dormancy is likely one of the major evolutionary adaptations in this genus enabling its species to endure the extreme droughty conditions of late summer (Quarterman 1950, p. 5).

Texas golden gladecress is dependent on late fall-winter precipitation levels that keep the glade sediments saturated and leave pooled water on the small outcrop ledges. Based on observations of Texas golden gladecress population sites over a 10-year period within the Weches outcrops and glade complexes, Texas golden gladecress appeared to be highly restricted to wet microhabitats and ''even within suitable sites, the species seems limited to only seasonal seep runs and vernal pools within the site'' (Singhurst 2011a, pers. comm., p. 3). The species' apparent requirement for direct contact with seeps and shallow puddles on exposed ledges of outcrop implies reliance on precipitation that falls directly onto the ledges and possibly on down-slope movement of water percolating through the sediment atop the clay layer. George (1987, pp. 2–4) observed that the Weches outcrops were waterlogged in the spring due to the clay stratum, with water percolating until it hit the clay, then moving laterally and exiting on the hillsides where the outcrops are. At the Chapel Hill site, Texas golden gladecress was found on and around a few spots where the glauconite was exposed rather than in the dense cover of the herbaceous matrix (Carr 2005, p. 2). The glauconite exposures at this site were wet from seeps or due to percolating water moving laterally on top of the bedrock.

All known Texas golden gladecress populations have been found on open, sunny exposures on Weches outcrops. Baskin and Baskin (1988, p. 837) indicated that a high light requirement was common among the endemic plants of rock outcrop plant communities in the unglaciated eastern United States. This obligate need for high light is supported by field observations showing that these eastern outcrop endemics, similar to Texas golden gladecress: Grow on well-lighted portion of the outcrops but not in adjacent shaded forests; photosynthesize best in full sun, with a reduction in the presence of heavy shading; and compete poorly with plants that shade them (Baskin and Baskin 1988, p. 837).

Texas golden gladecress apparently persists on its specialized habitat, at least in part, due to a lack of competition from taller or more vigorous plants. Rollins (1963, p. 17) found that, while *Leavenworthia alabamica* and *L. crassa* grew normally and produced seed in a portion of an experimental plot where weeds were removed, plants from both species died in the portion of the plot where *Poa annua* (annual bluegrass) was allowed unrestricted growth. Lloyd (1965, pp. 86–87) observed that plants of these two species competed poorly with the invading weed flora in abandoned agricultural fields.

The Weches outcrops and surrounding glade sites show large seasonal variation in species dominance as a result of the shift from saturated soils in winter-spring to hard, dry soil in summer (George and Nixon 1990, pp. 120–124). Singhurst (2012d, pers. comm.) described the Chapel Hill site as having bare spots on the tops of the glade with seasonal pools of water (similar to vernal pools). At this site the Texas golden gladecress would bloom, seed, dry out, and die back to be replaced in summer by drier, more succulent plants. Quarterman (1986 in George and Nixon 1990, p. 124) found that the thinner soils in Tennessee glades were dominated in spring by *Leavenworthia* spp., *Minuartia patula* (Pitcher's sandwort), and *Sedum pulchellum* (stonecrop), and that *Sporobolus vaginiflorus* (poverty dropseed) would be the dominant grass on these soils in summer. Singhurst observed similar species composition shifts at Texas golden gladecress sites (Singhurst 2012e, pers. comm.; Singhurst 2012h, pers. comm.). Even with this seasonal shift, there are a number of characteristic herbaceous species that occur in association with Texas golden gladecress (Table 1) (Bridges 1988, p. II–35; TNC 2003, p. 4; Carr 2006, p. 4). Carr (2006, p. 2) found that Texas golden gladecress at the Chapel Hill site shared the rocky outcrop ledges with a sparse covering of *Eleocharis* sp. (spike sedge), *Clinopodium arkansanum* (Ozark savory), and an unidentified moss. He described the 40–50 Texas golden gladecress plants as ''growing on or among clumps of moss on these soggy, unshaded glauconite exposures.''

TABLE 1—CHARACTERISTIC FLORA OF WECHES OUTCROPS IN TEXAS

Scientific name	Common name
Primary Characteristic Herbs	
Sedum pulchellum *	stonecrop.
Clinopodium arkansanum *.	Ozark savory.
Minuartia patula *	Pitcher's sandwort.
Minuartia drummondii *.	Drummond sandwort.
Valerianella radiata *	beaked cornsalad.
Isoetes butleri	Butler's quillwort.
Allium drummondii *	Drummond wild-garlic.
Portulaca oleracea *	common purslane.
Phemeranthus parviflorus *.	sunbright.
Eleocharis occulata *	limestone spikerush.
Some Other Potential Species	
Erigeron sp.	fleabane.
Lesquerella pallida	white bladderpod.
Desmanthus illinoensis.	Illinois bundleflower.
Euphorbia dentate	toothed spurge.
Croton monanthogynus.	doveweed.
Dalea purpurea	prairie clover.
Houstonia spp.	Bluetts.
Nassella leucotricha	Texas wintergrass.
Boutelous curtipendula.	sideoats grama.
Eleocharis compressa	flat-stemmed spikerush.
Sporobolus vaginiflorus.	poverty dropseed.
Thelesperma filifolium	slender greenthread.

TABLE 1—CHARACTERISTIC FLORA OF WECHES OUTCROPS IN TEXAS—Continued

Scientific name	Common name
Arnoglossum plantagineum.	groovestem Indian plantain.
Plantago virginica	Virginia plantain.
Schizachyrium scoparium.	little bluestem.
Polytaenia nuttallii	Nuttall's prairie parsley.
Onosmodium bejariense.	softhair marbleseed.
Liatris mucronata	narrowleaf gayfeather.
Draba cuneifolia	wedgeleaf draba.
Paronychia virginica ..	Whitlow wort.
Camassia scilloides ..	wild hyacinth.
Zigadenus nuttallii	Nuttall's death cama.
Algae	
Nostoc spp. Cyanobacteria.	
Frequent Woody Species	
Juniperus virginiana ..	eastern redcedar.
Pinus taeda	loblolly pine.
Liquidambar styraciflua.	sweetgum.
Cornus drummondii ...	roughleaf dogwood.
Sideroxylon lanuginosum.	gum bumelia.
Sophora affinis	Texas sophora.
Quercus muhlengergii	Chinquapin oak.
Opuntia sp	prickly pear cactus.
Rhus glabra	smooth sumac.
Rhamnus lanceolata	sanceleaf buckthorn.

*Strong association with Texas golden gladecress sites.

Therefore, based on the information above, we identify as essential physical features for Texas golden gladecress the following: Open, sunny exposures of Weches outcrops within Weches glade plant communities that are characterized by the species listed in Table 6, with relatively thin, rocky soils that are classified within Nacogdoches, Trawick, or Bub soils mapping units as identified by the Natural Resources Conservation Service soil survey maps. There must be bare, exposed bedrock on top-level surfaces or rocky ledges with very shallow depressions where rainwater can pool or seepage can collect.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

In order to undergo successful reproduction, Texas golden gladecress requires sufficient moisture in late fall to germinate, and in winter-spring to support growth, flowering, and fruit production. At sites where the Texas golden gladecress depends on seeps to provide its water, there must be sufficient sediment or slope at elevations above its habitat site in order to catch rainfall and allow its slow percolation down to the plant's location. For those Texas golden gladecress plants growing in what appear to be micro-depressions that occur on fairly level spots in more gently sloping ground, the water supply may be more due to direct rainfall and dew collection. The species appears to be dependent on its seedbank for its continued existence, so habitat should not be subjected to activities that would remove the seedbank. Therefore, based on the information above, we identify as essential physical features needed for Texas golden gladecress' successful reproduction outcrops with intact hydrology and for which the surface features (sufficient sediment or slope at elevations above its habitat site) and gladecress seedbed are undisturbed.

Habitats Protected From Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

Texas golden gladecress has a restricted geographic distribution. Its historic range did not extend further than approximately 12 miles (19 km) from the most southeastern to the most northwestern documented locations and all documented occurrences were located within a 3.1 mile-wide band (5 km-wide) around SH 21. The gladecress is also an endemic species, highly restricted to a specific habitat type that occurs in a scattered or patchy fashion across the landscape, with large areas of unsuitable habitat interspersed. The extant populations exhibit a high degree of isolation, being separated from each other by distances of 4.5 mi (7.2 km) and 7 mi (11.3 km), respectively, between the northern (Caney Creek Glade Site 1), central (Chapel Hill), and southern (Geneva) populations. All three populations are small in terms of areal extent and number of individual plants. Given their geographic isolation and small size, all of the sites are important for the conservation of the species.

In addition, we have determined that Texas golden gladecress likely persists at the Caney Creek Glade Site 7, even though the species' presence has not been reconfirmed since 1988 due to lack of access onto this private property. Although the species' presence has not been verified since 1988, the glade at this population site was described as being intact in 1996 by a forestry consultant. This individual subsequently revisited the site in 2000 and noted that invasive plants were encroaching into the glade (Walker 2012, pers comm., p. 4). The Caney Creek Glade Site 7 is located approximately 0.75 mi (1.2 km) southeast of Caney Creek Glade Site 1.

Combined, these sites represent the best habitat for the species throughout the geographic range. The loss of any of the known populations would reduce the potential to recover or conserve the species, thereby increasing the likelihood of extinction for the species across its range. Mapping of potential glade sites by TPWD (Singhurst 2012b, pers. comm.) shows that there is suitable habitat near the four extant populations that could provide sites for population expansion, thereby increasing the species' resiliency. These areas are representative of habitat across the species range and provide the potential for populations to spread, thereby enhancing recovery opportunities. Therefore, we do not believe that unoccupied areas outside of the geographic range are needed.

The long-term effects of climate change on the species are less clear with regard to whether any additional areas outside of those discussed above are needed for the species' future. See the Factor A discussion of ''Climate Change'' in the listing determination for the Texas golden gladecress for a summary of projected climate changes in Texas and how these changes may affect the species. The information currently available on the effects of global climate change and increasing temperatures does not make sufficiently precise estimates of the location and severity of the effects. Nor are we currently aware of any climate change information specific to the habitat of Texas golden gladecress that would indicate what areas may become important to the species in the future. We do not believe the species can easily adapt and colonize new habitats due to its habitat specificity. Therefore, based on the best available scientific and commercial information, we are not identifying areas outside of those currently occupied as areas that may be suitable due to the effects of climate change.

Primary Constituent Elements for Texas Golden Gladecress

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of Texas golden gladecress in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are

essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to Texas golden gladecress are:

(1) Exposed outcrops of the Weches Formation. Within the outcrop sites, there must be bare, exposed bedrock on top-level surfaces or rocky ledges with small depressions where rainwater or seepage can collect. The openings should support Weches Glade native herbaceous plant communities.

(2) Thin layers of rocky, alkaline soils, underlain by glauconite clay (greenstone, ironstone, bluestone), that are found only on the Weches Formation. Appropriate soils are in the series classifications Nacogdoches clay loam, Trawick gravelly clay loam, or Bub clay loam, ranging in slope 1–15 percent.

(3) The outcrop ledges should occur within the glade such that Texas golden gladecress plants remain unshaded for a significant portion of the day and trees should be far enough away from the outcrop(s) that leaves do not accumulate within the Texas golden gladecress habitat. The habitat should be relatively clear of nonnative and native invasive plants, especially woody species, or with only a minimal level of invasion.

With this designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species, through the identification of the features' primary constituent elements sufficient to support the life-history processes of the species.

Special Management Considerations or Protections for Texas Golden Gladecress

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

Texas golden gladecress may require special management considerations or protection to reduce the following threats: quarrying or other excavations, including pipeline installations; building over the top of occupied glades; construction or excavation upslope that alters water movement (sheet flow or seepage) downslope to Texas golden gladecress sites; pine tree plantings near glades; and invasive (native and nonnative) plants. Refer to the five-factor analysis in the listing determination for the Texas golden gladecress for more information on these threats.

The features essential to the conservation of Texas golden gladecress may require special management considerations or protection to reduce the following threats:

- Actions that remove the soils and alter the surface geology of the glades;
- Building or paving over the glades;
- Construction or excavation upslope that alters water movement (sheet flow or seepage) downslope to Texas golden gladecress sites;
- Planting trees adjacent to the edges of an outcrop resulting in shading of the glade and accumulations of leaf litter and tree debris;
- Encroachment by nonnative and native invading trees, shrubs, and vines that shade the glade;
- The use and timing of application of certain herbicides that can harm Texas golden gladecress mature plants and seedlings; and
- Fence placement such that livestock are likely to be directed through gladecress sites where habitat and plants may be trampled.

Management activities that could ameliorate these threats include (but are not limited to):

- Avoiding Weches glades when planning the location of quarries, well pads, roads, other facilities or structures, or pipeline routes, through glade complexes;
- Avoiding above-ground construction or excavations in locations that would interfere with natural water movement to Texas golden gladecress habitat sites;
- Locating suitable habitat and determining the presence or absence of the species and identifying areas with glade complexes and protecting or restoring as many complexes as possible;
- Extending outreach to all landowners, including private and State, to raise awareness of the plant and its specialized habitat;
- Providing technical or financial assistance to landowners to help in the design and implementation of management actions that protect the plant and its habitat;
- Avoiding pine tree plantings near glades; and
- Brush removal, to maintain an intact native glade vegetation community.

Criteria Used To Identify Critical Habitat for Texas Golden Gladecress

As required by section 4(b)(2) of the Act, we used the best scientific and commercial data available to designate critical habitat. We reviewed available information pertaining to the habitat requirements of this species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we considered whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are not designating any areas outside the geographical area occupied by the species because occupied areas are sufficient for the conservation of the species.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for Texas golden gladecress and the Neches River rose-mallow. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

To guide what would be considered needed for the conservation of the species, we relied upon recommendations in a conservation plan for the San Augustine Glades developed by The Nature Conservancy of Texas (TNC 2003, p. 8). This served as a basis for the number of populations considered necessary for the conservation of Texas golden gladecress. This plan came from The Nature Conservancy's structured conservation planning process that relied on a science team with expertise in the habitats and flora of East Texas. The plan was developed with input from representative experts from academia, botanical institutions, and Federal and State agencies. We consider this plan the best available scientific information to determine what is essential for the conservation of the Texas golden gladecress.

This conservation plan concluded that at least eight viable (self-sustaining, ecologically functioning) populations of Texas golden gladecress, containing an average of 500 individuals each, at least one out of every five years, was the

target conservation goal for the species (TNC 2003, pp. 8, 12). We currently know of three extant populations that have been monitored as recently as 2012, and a fourth population site that we consider to still be in existence because the habitat has not been destroyed, within the areas occupied by the species (see ''Mapping Texas Golden Gladecress Critical Habitat'' section below for how we mapped the occupied areas). We used information provided by a TPWD botanist to evaluate whether the four areas might be sufficient to support eight viable populations of the species (Singhurst 2012a, pers. comm.; Singhurst 2012b, pers. comm.). The maps provided by this species expert identified potential glades within these areas by using: soil map units; a time series of aerial photographs that depicted changes in land cover; and personal experience and expertise with the species, the habitat, and this area of East Texas (Singhurst 2012b, pers. comm.). These sites occur in discrete areas across the entire historic range of the species and include sites that represent the different landscape settings (open, rocky, grazed pasture on seasonally seepy Weches outcrops at Caney Creek Glade Site 1; on very small, scattered exposures of glauconite within a more dense cover of herbaceous species at the Chapel Hill site; and in an open, grazed glade at the Geneva site) and soil types (Nacogdoches, Trawick, and Bub soil series) that have been historically documented at Texas golden gladecress occurrences.

Based on this analysis and our site visits, we determined that the occupied areas contain suitable habitat (with special management) to expand current populations and support additional populations of Texas golden gladecress to meet the conservation goals for the species. We judge there to be suitable sites within the occupied areas that can be used for natural expansion of existing populations or possible future augmentation if needed and advised during future recovery planning and implementation. The habitat in the four occupied areas is sufficient for attaining the goal of eight viable populations throughout the geographic range of the species. Therefore, additional areas as critical habitat outside of the currently occupied geographic areas would not be essential for the conservation of the species, and we have not identified any additional areas.

Areas Occupied by the Texas Golden Gladecress

As required by section 3(5)(A)(i) of the Act, for the purpose of designating critical habitat for Texas golden gladecress, we defined the geographic area currently occupied by the species. Generally, we define occupied areas as those where recent surveys in 2012 confirmed the species was present (Singhurst 2012f, pers. comm.). For one area, occupancy by the species has not been confirmed since 1988 (TXNDD 2012b, entire); however, there have been no recent surveys due to lack of access to the properties. For the purposes of designation of critical habitat, we are considering this area to be currently occupied because the species was known from this area in the past and the habitat conditions that support the species appear intact (based on aerial imagery), except for the growth of some woody vegetation in some areas. In total, we found four areas currently occupied by the Texas golden gladecress at the time it is listed.

Areas Unoccupied at the Time of Listing

We considered whether there were any specific areas outside the geographic area found to be occupied by the Texas golden gladecress that are essential for the conservation of the species as required by section 3(5)(A)(ii) of the Act. We evaluated whether there was sufficient area for the conservation of the species within the occupied areas determined above. As a result of that evaluation, we concluded that the habitat within the four occupied areas is sufficient for attaining the goal of eight viable populations throughout the geographic range of the species. Therefore, additional areas as critical habitat outside of the currently occupied geographic areas would not be essential for the conservation of the species and we have not identified any areas that were unoccupied at the time of listing.

Mapping Texas Golden Gladecress Critical Habitat

To determine the boundaries of critical habitat units around the species areas occupied by the species, we used a geographic information system (GIS) to overlay the appropriate soil maps over the occupied areas. The Texas golden gladecress is restricted to the Weches Formation, being found on only three soil map units: Nacogdoches clay loam 1–5 percent slope (NeE); Trawick gravelly clay loam 5–15 percent slope (TuD); and Bub clay loam 2–5 percent slope (BuB). We drew the boundaries around contiguous segments of these soil mapping units from the online San Augustine and Sabine County's soils survey (*http://WebSoilSurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx*) encompassing the occupied areas to form the boundary of the four critical units by using the edge of the soil type layer.

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, filled areas adjacent to paved roads, unpaved roads, and other structures because such lands lack physical or biological features for Texas golden gladecress. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the final rule and are not designated as critical habitat. Therefore, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027, on our Internet sites *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,* and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

We are designating as critical habitat lands that we have determined are occupied at the time of listing and contain sufficient physical or biological features to support life-history processes essential for the conservation of the Texas golden gladecress.

Four units were designated based on sufficient elements of physical or biological features being present to support Texas golden gladecress life processes. Some units contained all of the identified elements of physical or biological features and supported multiple life processes. Some units contained only some elements of the physical or biological features necessary to support the Texas golden gladecress particular use of that habitat.

Final Critical Habitat Designation for Texas Golden Gladecress

We are designating four units as critical habitat for Texas golden gladecress. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat. Those four units are: (1) Geneva; (2) Chapel Hill; (3) Southeast Caney Creek Glades; and (4) Northwest Caney Creek Glades. The approximate area of each critical habitat unit is shown in Table 2.

TABLE 2—DESIGNATED CRITICAL HABITAT UNITS FOR TEXAS GOLDEN GLADECRESS

Critical habitat unit	Private ac (ha)	State ac (ha)	Total size of all units ac (ha)
1. Geneva	381 (154)	7(3)	388 (157)
2. Chapel Hill	147 (59)	3 (1)*	150 (61)
3. Southeast Caney Creek Glades	37 (15)	3 (1)	40 (16)
4. Northwest Caney Creek Glades	767 (310)	8 (4)	775 (314)
TOTAL	1,332 (539)	21 (9)	1,353 (548)

*County owned.
Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and the reasons why they meet the definition of critical habitat for Texas golden gladecress, below.

Unit 1: Geneva

Unit 1 consists of 388 ac (157 ha) of private and State land located in northwest Sabine County, Texas. The unit is located 1.5 mi (2.3 km) south of Geneva, Texas, and 4.8 mi (7.7 km) north of Milam, Texas, and is bisected by SH 21. This unit is occupied at the time of listing and contains some of the physical or biological features essential to the conservation of the species, including open, sunny areas of Weches outcrops (glauconite exposures); some native Weches glade plant species characteristic of Texas golden gladecress sites (see Table 1); and Nacogdoches and Trawick soils. Approximately 2 percent (7.3 ac (3 ha)) of the land is State-owned and managed TXDOT ROW, and the Geneva Site Texas golden gladecress population occurs, in part, within this ROW. The remaining 98 percent of the land is privately owned. The area directly adjacent to the ROW Texas golden gladecress population has been cleared of woody vegetation within the recent past but is not fenced, so future land use is unknown. The geology and soils (primary constituent element 1 and 2) occur throughout the unit and aerial photography indicates that at least three other small, scattered open glades (as identified by TPWD) occur within the critical habitat unit.

The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats of woody plant invasion into open glades, possible changes in land use, including planting of loblolly or long-leaf pine to establish tree plantations, potential agricultural herbicide use to control woody plants, and destruction of the features by excavation, pipeline construction, or buildings.

Unit 2: Chapel Hill

Unit 2 consists of 150 ac (61 ha) of privately owned land, with one county road ROW, in northwestern San Augustine County, Texas. This unit is located 1.0 mi (1.6 km) south of SH 21, due west of the San Augustine-Sabine County line, and lies alongside County Road (CR) 151. This unit is linear in shape, running from southeast to northwest. Aside from CR 151, all other land in Unit 2 is privately owned. Current land cover appears to be approximately 70 percent woody cover; much of the forest being rows of pine trees. This unit was occupied at the time of listing by a population that grows on a privately owned, unfenced tract of land that measures approximately 0.25 ac (0.1 ha) in size. The geology and soils primary constituent elements occur throughout the unit, and aerial photography indicates that at least two other small, scattered, open glades (as identified by TPWD) occur within the critical habitat unit.

The features essential to the conservation of the species in this unit may require special management considerations or protection to address threats of woody plant invasion into open glades throughout the unit, conversion of pasture to pine plantations, pipeline construction, and herbicide application.

Unit 3: Southeast Caney Creek Glades

Unit 3 consists of 39.9 ac (16.2 ha) just southeast of the City of San Augustine, San Augustine County, Texas. Approximately 99 percent of the land within this unit is privately owned, with the other 1 percent being county ROW under the management of TXDOT. This unit is located 0.8 mi (1.2 km) south from SH 21 near San Augustine, Texas, along the north side of FM 3483. This unit is located across Sunrise Road from a glauconite quarry. The presence of the Texas golden gladecress plants at this site was last confirmed in the late 1980's. The glade at this population site was described as being intact in 1996 by a forestry consultant, who subsequently revisited the site in 2000 and noted that invasive plants were encroaching into the glade (Walker 2012, pers comm., p. 4). Based on these records from the site, and the lack of alteration to the substrate as assessed from remote imagery, we determined that the site still contains all the physical or biological features; therefore, we consider the unit occupied at the time of listing.

The features essential to the conservation of the species in this unit may require special management considerations or protection to address threats of woody plant invasion into the natural prairie and glade habitat, and pipeline construction.

Unit 4: Northwest Caney Creek Glades

Unit 4 consists of 775.3 ac (313.7 ha) that extends in a diagonal line from northeast to southwest, to the north and south of SH 21 just east of the City of San Augustine, San Augustine County, Texas. The unit is approximately 0.7 mi (1.1 km) wide. This unit is occupied at the time of listing. The geology and soils primary constituent elements occur throughout the unit and aerial photography indicates that at least five other small, scattered, open glades (as identified by TPWD) occur within the critical habitat unit. Approximately 1

percent (7.8 ac) of the land is State-owned and managed ROW by the TXDOT. The remaining 99 percent is privately owned. Approximately 75–80 percent of the southern portion of Unit 4 is forested. Historically, this unit was occupied by four of the eight known occurrences of Texas golden gladecress; however, three of the four have been lost to glauconite quarrying activities.

The features essential to the conservation of the species in this unit may require special management considerations or protection to address threats of glauconite mining, woody plant invasion into the natural prairie and glade habitat, and pipeline construction.

Physical or Biological Features Neches River Rose-Mallow

We derive the specific physical or biological features essential for Neches River Rose-mallow from studies of this species' habitat, ecology, and life history as described in the Critical Habitat section of the proposed rule to designate critical habitat published in the **Federal Register** on September 11, 2012, (77 FR 55968), and in the information presented below. Additional information can be found in the final listing rule published in today's **Federal Register**. We have determined that Neches River rose-mallow requires the following physical or biological features:

Space for Individual and Population Growth and for Normal Behavior

Neches River rose-mallow is endemic to open habitats in wetlands of the Pineywoods of East Texas (Gould 1975, p. 1; Correll and Johnston 1979, p. 1). The Neches River rose-mallow is found within seasonally flooded river floodplains as described by Diggs *et al.* (2006), where the natural bottomlands occupy flat, broad portions of the floodplains of major rivers and are seasonally inundated. Associated flood-tolerant species in this habitat include of *Quercus* sp. (oak), *Liquidambar styraciflua* (sweetgum), *Ulmus americana* (American elm), *Nyssa biflora* (swamp tupelo), and *Acer rubrum* (red maple) (Diggs *et al.* 2006, p. 103). Habitat is characterized as sloughs, oxbows, terraces, and sand bars, and habitat found along depressional or low-lying areas of the Neches, Sabine, and Angelina River floodplains and Mud and Tantabogue Creek basins (Warnock 1995, p. 11). Sites include both intermittent and perennial wetlands with plants located within 3.2 ft (1.0 m) of standing water, depending on current drought and precipitation levels (Warnock 1995, p. 14). Water levels at each site are variable, depending on proximity to water, amount of rainfall, and floodwaters. Habitat elevations range from 170 to 265 ft (51–80 m) above sea level (Warnock 1995, p. 13).

Warnock (1995) noted that seed dispersal is likely by water and Scott (1997, p. 5) also stated that seed dispersal appears to be entirely water dependent. While water-mediated seed dispersal of the Neches River rose-mallow is highly likely, it is not known that flowing water is required for downstream dispersal of Neches River rose-mallow seeds. Rivers of East Texas tend to overflow onto banks and floodplains (Diggs *et al.* 2006, p. 78), especially during the rainy season, thereby providing an avenue for seed dispersal. Research has not been done to identify methods of seed dispersal upstream; however, avian species may facilitate this process.

Based on the best scientific and commercial data, we identify intermittent and perennial, open waters in the Neches, Sabine, Angelina River basins and Mud and Tantabogue Creeks, with areas of seasonal or permanent inundation with native woody vegetation, as an essential physical or biological feature for the species.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

The Neches River rose-mallow is typically found in open, flat areas of wetlands with hydric, alluvial soils of the Inceptisol or Entisol orders (Gould 1975, p. 10; Warnock 1995, pp. 11, 13; Diggs *et al.* 2006, pp. 46, 79) that are frequently associated with flooded clay loams. Although the soils are generally water-saturated, they can often be surficially dry. Intermittent wetlands are inundated during the winter months but become dry during the summer months (Warnock 1995, p. 11). Rivers of East Texas tend to overflow onto banks and floodplains (Diggs *et al.* 2006, p. 78), especially during the rainy season, thereby dispersing seed. Precipitation in Texas increases from the west to the east, making East Texas an area with comparatively higher annual precipitation, generally ranging from 35 to 50 in (89–127 cm) (Gould 1975, p. 10).

Many wetland species, including the Neches River rose-mallow, are adapted to highly variable rates of water flow, including seasonal high and low flows, and occasional floods and droughts. Normal habitat conditions include a cyclical pattern of wet winters and dry summers so the Neches River rose-mallow may have some tolerance of drought; however, the species may not be able to thrive in an environment with a higher frequency and intensity of droughts. Periods of drought may increase the susceptibility of sites to soil compaction from hogs and cattle, invasion from nonnative species, and herbivory. Optimal habitat conditions for Neches River rose-mallow include intermittent or perennial wetlands that can be variable throughout the year, often becoming surficially dry during the summer and wet during the winter or might be exposed to water year-round.

Regarding the Neches River rose-mallows' light requirements, an open canopy is typical within Neches River rose-mallow habitat (Warnock 1995, pp. 11, 13), but plants also grow in partial sun (as is the case at SH 204 ROW). Sunlight is needed for blooming as the blooming period may only last 1 day (Snow and Spira 1993, p. 160).

The growth of woody and weedy vegetation was historically maintained by natural fires that would occur every 1 to 3 years in East Texas (Landers *et al.* 1990, p. 136; Landers 1991, p. 73) thereby controlling the overgrowth of longleaf and loblolly pine, as well as nonnative species. Humans later used fire to suppress overgrowth; however, in the more recent past, human's active fire suppression has allowed native species including sweetgum, oaks, *Carya* sp. (hickories), *Diospyros virginiana* (common persimmon), and *Magnolia grandiflora* (southern magnolia) to invade the natural pine forests (Daubenmire 1990, p. 341; Gilliam and Platt 1999, p. 22) and this woody overgrowth has reduced the open canopy needed by the Neches River rose-mallow. Lack of fire increases the opportunity for nonnative species, such as *Triadica sebifera* (Chinese tallow), to invade these sites and this invasion has become one of the most significant threats to the Neches River rose-mallow. Lack of fire has provided increased opportunities for this species to invade all Neches River rose-mallow sites.

Therefore, based on the information above, we identify hydric alluvial soils of seasonally or permanently inundated wetlands and native woody or associated herbaceous vegetation, largely with an open canopy providing partial to full sun exposure with low levels or no nonnative species to be a physical or biological feature for the Neches River rose-mallow.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

The Neches River rose-mallow likely has similar seed buoyancy and seed dispersal mechanisms to *Hibiscus*

moscheutos whose seeds can remain buoyant for several hours (Warnock 1995, p. 20; Scott 1997, p. 8; Reeves 2008, p. 3) and for which seed dispersal appears to be entirely water dependent (Scott 1997, p. 5). Given this information and that Neches River rose-mallow prefers depressional or palustrine areas, seed dispersal into sloped areas with higher elevations, like uplands, is not anticipated. Downstream or adjacent portions of streams or creeks of occupied Neches River rose-mallow sites may provide connectivity and new opportunities for reproduction. Long-distance seed dispersal ranges and upstream dispersal methods are unknown, but may be facilitated by avian species. Therefore, we identify flowing water as the likely agent for seed dispersal to adjacent or downstream habitat as a physical or biological feature for the Neches River rose-mallow.

The Neches River rose-mallow is a perennial that dies back to the ground every year and resprouts from the base; however, still maintaining aboveground stems. Longevity of the species is unknown, but it may be long-lived. Cross-pollination occurs (Blanchard 1976, p. 38) within the Neches River rose-mallow populations and the species has high reproductive potential (fecundity). The number of flowers and fruits per plant were documented during the TPWD's annual monitoring of the Neches River rose-mallow along SH ROWs. The species produced an average of 50 fruits per plant, but seed viability and survivorship are not known (Poole 2012a, pers. comm.).

Potential pollinators of the Neches River rose-mallow may include, but are not limited to, the common bumblebee (*Bombus pensylvanicus),* Hibiscus bee (*Ptilothrix bombiformis),* moths, and the scentless plant bug *Niesthrea louisianica* (Klips 1995, p. 1471; Warnock 1995, p. 20; Warriner 2011, pers. comm.). Both *H. laevis* and *H. moscheutos* are pollinated by common bumblebees and the Hibiscus bee (Snow and Spira 1993, p. 160; Klips 1999, p. 270). The solitary Hibiscus bee prefers gently sloping or flat areas with sandy or sandy-loam soils for nesting areas (Vaughan *et al.* 2007, pp. 25–26; Black *et al.* 2009, p. 12), and female bees will excavate nest cavities in elevated, hard packed dirt roadways or levees near stands of *Hibiscus* (in this case *H. palustris*) and standing water (Rust 1980, p. 427).

Members of the genus *Bombus* (family Apidae) are social bees, predominantly found in temperate zones, nesting underground (Evans *et al.* 2008, p. 6) in sandy soils (Cane 1991, p. 407). Bumblebees nest in small cavities, often underground in abandoned rodent nests, grass (Black *et al.* 2009, p. 12), or in open, grassy habitat (Warriner 2012a, pers. comm.). Other aboveground-nesting bees that may potentially pollinate the Neches River rose-mallow may include carpenter, mason, and leaf cutter bees that nest in dead snags or twigs or standing dead wood (Warriner 2012a, pers. comm.). Maximum foraging distances of solitary and social bee species are 492 to 1,968 ft (150 to 600 m) (Gathmann and Tscharntke 2002, p. 762) and 263 to 5,413 ft (80 to 1,650 m) (Walther-Hellwig and Frankl 2000, p. 244), respectively. The scentless plant bug is a member of the *Rhopalidae* family found specifically in association with various members of the Malvaceae family. This species is known to deposit eggs on both the vegetative and reproductive parts of mallow plants (Spencer 1988, p. 421). Holes have been eaten in floral parts of Neches River rose-mallow plants suggesting that the scentless plant bug may be a pollinator as well as a consumer of the Neches River rose-mallow. Although we have some anecdotal information on the species' potential habitat as well as other *Hibiscus* species needs for pollination, we do not have specific information for the Neches River rose-mallow. Therefore, the physical or biological features for the Neches River rose-mallow were not based on the current pollinator information.

Habitats Protected From Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

The natural geographic range of the Neches River rose-mallow is within Trinity, Houston, Harrison, and Cherokee Counties, Texas. In addition, populations of Neches River rose-mallow have been introduced within their natural geographic range on Federal lands in Houston County and on private land in Nacogdoches County. In total, there are 12 occurrences of Neches River rose-mallow; however, 11 of these are within the known geographic range of the species, and, as of October 2011, are considered occupied by the Neches River rose-mallow.

Several Neches River rose-mallow populations are found along SH ROWs, including SH 94 in Trinity County, SH 204 in Cherokee County, and SH 230 in Houston County. These populations are separated from one another and are considered distinct. Adjacent lands to the SH 230 ROW were purchased by the Texas Land Conservancy in 2004 (The Texas Land Conservancy 2011), an organization previously known as the Natural Areas Preservation Association. The Neches River rose-mallow plants in this site, referred to as Lovelady, are part of the population that included the Neches River rose-mallow plants in the SH 230 ROW. In the past, several subpopulations existed along multiple portions of the SH 204 ROW, however several of these subpopulations were not found in 2011 even though recent drought conditions have allowed surveyors to count Neches River rose-mallow plants in parts of sites that were not accessible in the past because the sites were too wet.

The Davy Crockett NF, Houston County, Texas, contains four extant sites of the Neches River rose-mallow; three introduced and one natural. The one natural population is found in Compartment 55 located west of the Neches River. This site is considered the most robust of all known extant populations (Poole 2011c, p. 3) and is almost entirely unaltered from its originally observed state as a seasonally wet, flatwood pond, with vegetation being distinctly zoned (TXNDD 2012a, p. 29).

The remaining Neches River rose-mallow sites are primarily on private land, although in several places they extend onto SH ROW. These include the (1) Mill Creek Gardens (also known as Hayter Blueberry Farm), Nacogdoches County; (2) Harrison County site in Harrison County; (3) Camp Olympia, Trinity County; (4) Champion, Trinity County. Portions of Lovelady (adjacent to SH 230 ROW), Houston County, and Boggy Slough (also part of SH 94 ROW), Trinity County, are also on private land. The Mill Creek Gardens population was introduced by the Stephen F. Austin State University Mast Arboretum who planted 96 Neches River rose-mallow plants at this site (Scott 1997, pp. 6–7). The Boggy Slough site consists of several scattered Neches River rose-mallow subpopulations that are located in close proximity to one another. The Boggy Slough subpopulations and the SH 94 ROW population are separated by no more than 1.0 km (3,280 ft) and these two sites likely constitute a single, larger population, sharing pollinators, and exchanging genetic material (NatureServe 2004, p. 6; Poole 2011c, p. 2). One property was purchased in 2004 by The Texas Land Conservancy (The Texas Land Conservancy 2011), this site is referred to as Lovelady. The site at Harrison County, Camp Olympia, and Champion were not observed in 2011; however, using aerial imagery and the best scientific and commercial data available we determined that these sites contain the physical or biological

features essential to the Neches River rose-mallow.

East Texas is subtropical with a wide range of extremes in weather (Diggs *et al.* 2006, p. 65). The native vegetation of this region evolved with, and is adapted to, recurrent temperature extremes (Diggs *et al.* 2006, p. 67). The Pineywoods region of East Texas is vulnerable to even small climatic shifts because it is ''balanced'' on the eastern edge of a dramatic precipitation gradient. Temperature increases that are projected in climate change scenarios will likely be associated with increases in transpiration and more frequent summer droughts. Decreased rainfall may result in an eastward shift in the forest boundary and replacement of the Pineywoods forest with scrubland (Diggs *et al.* 2006, p. 80). There may also be a northerly shift of southerly species based on climate models that predict increasing temperatures and, therefore, increasing evapotranspiration and decreasing regional precipitation and soil moisture (Diggs *et al.* 2006 p. 73). In October 2011, the Service observed that all known Neches River rose-mallow sites were impacted by extreme drought conditions.

Predictions of climate change are variable, and effects from climate change on the Neches River rose-mallow are not fully understood. The information currently available on the effects of global climate change and increasing temperatures does not make sufficiently precise estimates of the location and severity of the effects specific to East Texas. Further, we are not currently aware of any climate change information specific to the habitat of the Neches River rose-mallow that would indicate what areas may become important to this species in the future. Therefore, we are not identifying any areas outside of those currently occupied as areas that may be suitable for Neches River rose-mallow due to the effects of climate change.

Primary Constituent Elements for Neches River Rose-Mallow

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of Neches River rose-mallow in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to the Neches River rose-mallow are:

(1) Intermittent or perennial wetlands within the Neches, Sabine, and Angelina River floodplains or Mud and Tantabogue Creek basins that contain:

(a) Hydric alluvial soils and the potential for flowing water when found in depressional sloughs, oxbows, terraces, side channels, or sand bars;

(b) Native woody or associated herbaceous vegetation, largely with an open canopy providing partial to full sun exposure with low levels or no nonnative species.

With this designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species, through the identification of the features' primary constituent elements sufficient to support the life-history processes of the species.

Special Management Considerations or Protection for Neches River Rose-Mallow

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

Threats to those features that define the primary constituent elements for the Neches River rose-mallow include: (1) Alteration of naturalized flow regimes through projects that require channelization; (2) water diversions or hydrologic change to streams and rivers; (3) encroachment from native woody riparian species and nonnative species; (4) detrimental roadside management practices including inappropriate frequency and timing of mowing during the species' blooming period; (5) herbivory and, (6) trampling from hog and cattle; and (7) drought.

Special management considerations or protection are required within critical habitat areas to address these threats. Special management activities that could ameliorate these threats include, but are not limited to:

- Construction of cattle exclusion fencing to remedy herbivory at Lovelady to maintain plant survival and suitable habitat;
- Restoration of the cattle stock pond back to a natural flatwoods pond at Lovelady to restore the sites hydrology;
- Coordination with TXDOT to establish and continue effective management along ROWs for control of native woody species and nonnatives (including, but not limited to mowing, brush-hogging, or other hand-clearing techniques) and completion of these techniques only during the appropriate life stages of the Neches River rose-mallow to maintain open habitat;
- Coordination with the Angelina and Neches River Authority and consultation with the U.S. Army Corps of Engineers on the proposed construction of Lake Columbia Reservoir in Cherokee County to maintain hydrology at the downstream Neches River rose-mallow site;
- Consultation between the Service and the U.S. Army Corps of Engineers for any filling or draining of Federal jurisdictional wetlands to ensure maintenance of hydrology; and
- Clearing or burning on the Davy Crockett NF for control of Chinese tallow and to maintain an adequate level of openness in habitat.

Criteria Used To Identify Critical Habitat for Neches River Rose-Mallow

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We reviewed all available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we also considered whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are not designating any areas outside the geographic area currently occupied by the species because we found that the currently occupied areas are sufficient for the conservation of the species.

Areas Occupied by the Neches River Rose-Mallow

For the purpose of designating critical habitat for the Neches River rose-mallow, we defined the geographic area currently occupied by the species as required by section 3(5)(A)(i) of the Act. Generally, we define occupied areas based on the most recent field surveys available in 2011 and recent reports and survey information from the Davy Crockett NF, TPWD, TXDOT, and observations by species experts (Miller 2011, pers. comm.; TXNDD 2012a, entire). Currently occupied areas for the Neches River rose-mallow are found in Trinity, Houston, Cherokee, Nacogdoches, and Harrison Counties in East Texas.

In total, we found 11 areas currently occupied by the Neches River rose-mallow. Two of these areas have not been verified since the late 1970s and

mid-1990s. However, the best available scientific and commercial data does not indicate that these sites have been modified such that they no longer have the physical or biological features essential for the Neches River rose-mallow, so we consider them still occupied. Four of the critical habitat units currently occupied are introduction sites, three of which are located on Davy Crockett NF compartments and one is located at Mill Creek Gardens. The remaining five units support existing populations of Neches River rose-mallow and the plants were observed at each of these nine areas in 2011 (Creech 2011b, pers. comm.; Miller 2011, pers. comm.; TXNDD 2012a, entire).

To guide what would be considered needed for the conservation of the species, we relied upon Pavlik's 1996 (pp. 127–155) Minimum Viable Population analysis tool, using the best scientific and commercial data on the species' life history and reproductive characteristics and input from a species expert (Poole 2012a, pers. comm.). Based on this analysis, we concluded that at least 10 viable populations of the rose-mallow, containing an average of about 1,400 individuals each, was the conservation goal for the species.

We considered whether the 11 occupied areas contained sufficient habitat to meet these conservation goals. Each area currently has one population, so the occupied areas are sufficient for the ten populations needed. However, the overall estimates of the number of individuals in each population are low, with the largest population estimated to contain 750 individuals at compartment 55 in October 2010 (Allen and Duty 2010, p. 4). All of the known populations currently have much fewer individuals than the conservation goals. Considering the size and amount of suitable habitat in the areas occupied by the species (see ''Mapping Neches River Rose-mallow Critical Habitat'' section below for how we mapped the occupied areas), we found that the 11 areas contain suitable habitat (with special management) to support increased population sizes to meet the conservation goals for the species.

Based on this analysis and our site visits, we determined that the occupied areas contain suitable habitat (with future special management) to support larger populations of Neches River rose-mallow to meet the conservation goals for the species. We judge there to be suitable sites within the occupied areas that can be used for natural expansion of the populations during future recovery planning and implementation. The habitat in the 11 occupied areas is sufficient for attaining the goal of 10 viable populations throughout the geographic range of the species.

Areas Unoccupied by the Neches River Rose-Mallow

We considered whether there were any specific areas outside the geographic area found to be occupied by the rose-mallow that are essential for the conservation of the species, as required by section 3(5)(A)(ii) of the Act. We first evaluated whether there was sufficient area for the conservation of the species within the occupied areas determined above.

We acknowledge there is some contradicting evidence regarding occupancy status for 3 of the 11 Units designated as critical habitat for the Neches River rose-mallow. We maintain Units 2, 9, and 11 are occupied by the species based on the presence of essential features and the absence of noticeable habitat disturbances since the last verifiable record of the species in each area. However, we alternatively designate Units 2, 9, and 11 under section 3(5)(A)(ii) of the Act because we consider them to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including these units in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species.

Based on the Minimum Viable Population analysis and our site visits to the Neches River rose-mallow sites in 2011, we determined that the occupied areas contain suitable habitat (with future special management) to support larger populations of Neches River rose-mallow to meet the conservation goals for the species. The habitat in the 11 occupied areas is sufficient for attaining the goal of 10 viable populations throughout the geographic range of the species. Therefore, identifying additional areas as critical habitat outside of the currently occupied geographic areas would not be essential for the conservation of the species, and we have not identified any additional areas.

Mapping Neches River Rose-Mallow Critical Habitat

Once we determined the occupied areas, we next delineated the primary constituent elements. We estimated the area of habitat based on several key features determined through our 2011 field surveys and in past reports on habitat requirements. Since the Neches River rose-mallow prefers depressional or palustrine areas, we used topographic maps to identify habitat within uplands or habitat that exhibited changes in slope where the species was not anticipated to occur due to lack of hydric soils and where seeds were not likely to be dispersed due to a lack of flowing water (i.e., the uplands). National Wetland Inventory (NWI) maps were used to determine habitat types within palustrine systems. All areas, when mapped with this layer in GIS, were associated with emergent, forested, or scrub-shrub, with one area having an undetermined bottom (open water). All critical habitat units are seasonally, permanently, or semi-permanently flooded, which is consistent with our observations and available data. Due to the high variation of alluvial and hydric soils of Neches River rose-mallow habitat, specific soil types were not mapped during this analysis but are still a general wetland indicator.

To determine the boundaries of critical habitat units around the areas occupied by the species, we focused primarily on available canopy openness. We used topographic and NWI maps for confirmation of suitable habitat, then used aerial imagery available through Google Earth to determine dense cover in the habitat. We drew boundaries around the open areas that delineate the outer boundary of our critical habitat units. Critical habitat boundaries did not expand into heavily forested areas because those areas are generally too shady for the Neches River rose-mallow and were therefore not included.

When determining critical habitat boundaries, we made every effort to avoid including developed areas covered by manmade structures including: Buildings; bridges; aqueducts; runways; roads; well pads; metering stations; other paved areas; unpaved roads; and the filled areas immediately adjacent to pavement. These structures lack the physical or biological features essential to the Neches River rose-mallow. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands, as is the case with Unit 4, where the Neches River rose-mallow is known to occur in habitat beneath the SH 204 ROW overpass in areas that receive some sun. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the final rule and are not designated as critical habitat. Therefore, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical

or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027, on our Internet sites *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,* and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

We are designating as critical habitat lands that we have determined are occupied at the time of listing and contain sufficient physical or biological features essential in supporting life-history processes essential in the conservation of the Neches River rose-mallow that may require special management.

Eleven units were designated based on sufficient elements of physical or biological features being present to support the Neches River rose-mallow life processes. Some units contained all of the identified elements of physical or biological features and supported multiple life processes. Some units contained only some elements of the physical or biological features necessary to support the Neches River rose-mallow particular use of that habitat.

Final Critical Habitat Designation for Neches River Rose-mallow

We are designating 11 units as critical habitat for Neches River rose mallow. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat. Those 11 units are (1) SH 94 ROW, Trinity County; (2) Harrison County; (3) Lovelady, Houston County; (4) SH 204 ROW, Cherokee County; (5) Davy Crockett NF, Compartment 55, Houston County; (6) Davy Crockett NF, Compartment 11, Houston County; (7) Davy Crockett NF, Compartment 20, Houston County; (8) Davy Crockett NF, Compartment 16, Houston County; (9) Champion, Trinity County; (10) Mill Creek Gardens, Nacogdoches County; and (11) Camp Olympia, Trinity County. The approximate area of each critical habitat unit is shown in Table 3.

TABLE 3—CRITICAL HABITAT UNITS FOR THE NECHES RIVER ROSE-MALLOW

Critical habitat unit	Private ac (ha)	State ac (ha)	Federal ac (ha)	Size of Unit ac (ha)
1. SH 94 ROW/Boggy Slough	2.3 (0.9)	1.1 (0.5)	0	3.4 (1.4)
2. Harrison County	20.8 (8.4)	0	0	20.8 (8.4)
3. Lovelady/(Near SH 230 ROW)	6.3 (2.5)	0	0	6.3 (2.5)
4. SH 204 ROW	0	8.7 (3.5)	0	8.7 (3.5)
5. Davy Crockett NF, Compartment 55	0	0	3.8 (1.5)	3.8 (1.5)
6. Davy Crockett NF, Compartment 11	0	0	7.3 (3.0)	7.3 (3.0)
7. Davy Crockett NF, Compartment 20	0	0	3.4 (1.4)	3.4 (1.4)
8. Davy Crockett NF, Compartment 16	0	0	32.8 (13.3)	32.8 (13.3)
9. Champion	2.9 (1.2)	0	0	2.9 (1.2)
10. Mill Creek Gardens (emergency spillway)	95.3 (38. 6)	0	0	95.3 (38. 6)
11. Camp Olympia	0.2 (0.1)	0	0	0.2 (0.1)
Total Acreages for All Critical Habitat Units:				166.5 (67.0)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Neches River rose-mallow, below.

Unit 1: SH 94 ROW

Unit 1 consists of 3.4 ac (1.4 ha) on both the 94 ROW and on private land in Trinity County. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species: a wetland with hydric alluvial soils with the potential for flowing water and in some places, an open canopy with partial to full sun exposure. The unit parallels SH 94 for 0.1 mi (0.2 km) to the north, beginning about 0.06 mi (0.09 km) from the now abandoned rest stop. From the easternmost boundary, Unit 1 then extends onto private lands (about 0.06 mi (0.09 km)) where it ends, abutting a drainage ditch and levee. The unit parallels the ditch for about 0.8 mi (1.3 km) until vegetation becomes thick and the canopy cover increases. SH 94 ROW was first observed in 1955 with only herbarium specimens collected, and in 1968, over 100 plants were counted (TXNDD 2012a, pp. 1–11). A total of 128 plants were counted in October 2011. Unit 1 is optimal habitat for the Neches River rose-mallow as indicated by the abundance of individual plants observed in fall 2011 despite drought conditions.

The features essential to the conservation of the species in Unit 1 may require special management considerations or protection to address the threats of: hydrologic changes on the private lands, management of nonnative species and native woody vegetation, and appropriate timing and frequency of mowing and maintenance along the ROW.

Unit 2: Harrison County

Unit 2 is found at a location between 0.2–0.4 mi (0.3–0.6 km) north of Farm to Market Road 2625 in Harrison County. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. A specimen of the Neches River rose-mallow was first collected from the site in 1980 by Elray Nixon from SFASU and was originally thought to be *H. laevis;* however, the specimen was recently reexamined and confirmed as the Neches River rose-mallow (TXNDD 2012a, p. 12). Warnock (1995) provided only generic coordinates for the location of this site, but, using aerial photography, we were able to determine the location of this unit. Unit 2 is composed of 8.4 ha (20.8 ac) of occupied habitat entirely on private land. The physical or biological features

essential to the conservation of the species include the large wetland or pond on hydric alluvial soils and open canopy.

The features essential to the conservation of the species in Unit 2 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, and maintenance of natural hydrology of the wetland.

As noted above, there is contradicting evidence regarding the occupancy of Unit 2. However, Unit 2 contains the physical or biological features essential to the conservation of the Neches River rose-mallow and these features support life-history characteristics of the species (such as palustrine wetland habitat and native woody vegetation with an open canopy). The presence of these traits and the absence of noticeable habitat disturbances makes it likely that this unit remains occupied, despite the last verified record of this species being from the late 1980's, and therefore it meets the definition of critical habitat under section 3(5)(A)(i) of the Act because it is within the geographical area occupied by the species at the time of listing. However, we alternatively designate Unit 2 under section 3(5)(A)(ii) of the Act because we consider the unit to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including this unit in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species. We have determined that the species requires a minimum of 10 populations and that the occupied areas contain suitable habitat (with future special management) to support larger populations of Neches River rose-mallow to meet the conservation goals for the species. The habitat in the 11 units is sufficient for attaining the goal of 10 viable populations throughout the geographic range of the species. Thus, for the purposes of this rulemaking, we determine that Unit 2 meets the definition of critical habitat under section 3(5)(A)(i) or, alternatively, under section 3(5)(A)(ii) of the Act.

Unit 3: Lovelady

Unit 3 in Houston County, found northwest of Farm to Market 230, extends 0.3 mi (0.5 km) north and contains 6.3 ac (2.5 ha) of private land. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. The majority of land in Unit 3 belongs to the Texas Land Conservancy, who purchased the property in 2004 specifically for the conservation of the Neches River rose-mallow. This unit extends northward onto private lands where a known population of the Neches River rose-mallow was re-verified during a 2004 TXDOT survey. Essential biological features within Unit 3 include a depressional creek bed within Tantabogue Creek basin; inundation from overflow of the creek from the northwest or from rain events that may allow ponding in low-lying areas; open habitat with native woody vegetation; and frequently inundated alluvial soils.

The features essential to the conservation of the species in Unit 3 may require special management considerations or protection to address the following threats: Management of nonnative species and native woody vegetation; maintenance of natural hydrology of habitat and adjacent areas, including rebuilding the stock pond to mimic natural flow regimes; construction of a cattle-exclusion fence to restrict grazing; and long-term maintenance of Tantabogue Creek flows by obtaining a conservation easement or agreement.

Unit 4: SH 204 ROW

Unit 4 in Cherokee County contains 8.7 ac (3.5 ha) of occupied habitat along SH 204 ROW and within the Mud Creek basin. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. Unit 4 extends about 0.3 mi (0.5 km) from east to west and about 0.01 mi (0.02 km) from SH 204, on both the north and south sides of the highway, up to the private fence. Unit 4 also includes a 0.1 mi (0.2 km) section of the Mud Creek basin where Neches River rose-mallow could expand or where seeds could be dispersed. This site was first observed in 1992 with a single plant and since that time, a maximum number of 75 plants have been counted (in 1997). Since 2003, the Neches River rose-mallow has been observed underneath most of the overpass (TXNDD 2012a, pp. 20–28), in areas that did receive some level of sun (not completely shaded). Essential biological features of Unit 4 include its location within the Mud Creek basin, open habitat with full sun, and association with alluvial, hydric soils.

The features essential to the conservation of the species in Unit 4 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance of natural hydrology of the wetland, and appropriate timing and frequency of mowing and maintenance along the ROW.

Unit 5: Davy Crockett NF, Compartment 55

Unit 5 is the only unit that contains a natural population of the Neches River rose-mallow on Federal lands within the Davy Crockett NF. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. Occupied habitat of Unit 5 includes 3.8 ac (1.5 ha). An open flatwood or forested (Cowardin *et al.* 1979, p. 20) pond is surrounded by pine-oak forest. Unit 5 is 0.09 mi (0.14 km) in diameter and includes a palustrine flatwood pond and the surrounding open habitat. Essential habitat features of Unit 5 include its location within the Neches River basin, adjacent to a flatwood pond where water could be exchanged, surrounding native woody vegetation, and associated alluvial soils.

The features essential to the conservation of the species in Unit 5 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance and repair of habitat from hog damage, maintenance of natural hydrology of the wetland, and controlled use of herbicides.

Unit 6: Davy Crockett NF, Compartment 11

Unit 6 includes 7.3 ac (3.0 ha) of occupied habitat on Compartment 11 on Federal land in the Davy Crockett NF within Houston County. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. The SFASU introduced 200 plants into a seasonally flooded and low-lying wetland. Unit 6 is 0.2 mi (0.3 km) in diameter, and essential habitat features include a partially open, depressional pond surrounded by native vegetation.

The features essential to the conservation of the species in Unit 6 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance of natural hydrology of the wetland, maintenance and repair of habitat from hog damage, and controlled use of herbicides.

Unit 7: Davy Crockett NF, Compartment 20

Unit 7 includes 3.4 ac (1.4 ha) of Federal land in Compartment 20 of the

Davy Crockett NF, Houston County. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. The SFASU introduced 200–250 plants in 2000, and the site was occupied at the time of listing. Essential habitat features in this unit include the hydric alluvial soils, native woody vegetation, natural flows and hydrology of the draining pond, and an open canopy of the perennial wetland where the Neches River rose-mallow is located.

The features essential to the conservation of the species in Unit 7 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance of natural hydrology of the wetland, maintenance and repair of habitat from hog damage, and controlled use of herbicides.

Unit 8: Davy Crockett NF, Compartment 16

Unit 8 encompasses 32.8 ac (13.3 ha) of occupied Federal habitat in the Davy Crocket NF, Houston County. The SFASU introduced 450 plants at this site in 2000, but only 43 stem clusters were observed in 2011. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. Essential habitat and biological features include a partially open depressional wetland within the Neches River floodplain, native riparian plant associates, and alluvial soils.

The features essential to the conservation of the species in Unit 8 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance of natural hydrology of the wetland, restriction of wetland conversion to beaver dams, and controlled use of herbicides.

Unit 9: Champion

The Champion site, Trinity County, is located on private land approximately 0.7 mi (1.1 km) south-southeast of the Houston County line, about 0.8 mi (1.2 km) north of the confluence of White Rock Creek and Cedar Creek (TXNDD 2012a, p. 55). The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. Two small polygons are being designated as occupied critical habitat, both encompassing 1.2 ha (2.9 ac). Essential habitat features on the unit include palustrine wetlands with an open canopy.

The features essential to the conservation of the species in Unit 9 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintenance of natural hydrology of the entire site, and habitat conversion to planted pine and other hardwoods.

As noted above, there is contradicting evidence regarding the occupancy of Unit 9. However, Unit 9 contains the physical or biological features essential to the conservation of the Neches River rose-mallow and these features support life-history characteristics of the species (such as palustrine wetland habitat with an open canopy). The presence of these traits and the absence of noticeable habitat disturbances makes it likely that this unit remains occupied, despite the last verified record of this species in 2001, and therefore it meets the definition of critical habitat under section 3(5)(A)(i) of the Act because it is within the geographical area occupied by the species at the time of listing. However, we alternatively designate Unit 9 under section 3(5)(A)(ii) of the Act because we consider the unit to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including this unit in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species. We have determined that the species requires a minimum of 10 populations and that the occupied areas contain suitable habitat (with future special management) to support larger populations of Neches River rose-mallow to meet the conservation goals for the species. The habitat in the 11 units is sufficient for attaining the goal of 10 viable populations throughout the geographic range of the species. Thus, for the purposes of this rulemaking, we determine that Unit 9 meets the definition of critical habitat under section 3(5)(A)(i) or, alternatively, under section 3(5)(A)(ii) of the Act.

Unit 10: Mill Creek Gardens

Unit 10 is an introduced site at Mill Creek Gardens, Nacogdoches County. Stephen F. Austin State University Mass Arboretum purchased the land and created the gardens in 1995 as part of a conservation agreement. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species. Plants grown from cuttings by SFASU were introduced within research plots in an area that overflows from an adjacent pond. According to a commenter, this site is along an emergency spillway of a dam where the soil is much different than at any of the natural population sites. However, vegetation around the site is well adapted to full and partial water inundation (TXNDD 2012a, p. 50), both of which are essential habitat features. The unit contains 95.3 ac (38. 6 ha) of occupied habitat.

The features essential to the conservation of the species in Unit 10 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation, maintaining natural hydrology of the entire site, maintenance and repair of habitat from hog damage, and maintaining the natural hydrology of the adjacent pond.

Unit 11: Camp Olympia

Unit 11 is located on private property in Trinity County. The unit contains 0.2 ac (0.1 ha) of palustrine wetland habitat north of Lake Livingston. The documented presence of the Neches River rose-mallow at this site is based on voucher specimens collected in 1977 and in 1978. The site has only been visited by a species expert twice since 1978. Although site was surveyed by Klips in 1992 and Warnock in 1993 without success, leading Warnock (1995, p. 6) to list the site as extirpated or historical, there is reason to believe that the plants may still be there. In addition to site conditions that can change with fluctuations in water level; resulting in shifting of the plants' location, Warnock's 1993 site survey was conducted from the water (canoe), not from the land, and the presence of the Neches River rose-mallow may have been hidden from view by dense vegetation at the water's edge. The site could have been overgrown, the plant may not have been in bloom at the time of the survey, and environmental factors could have hindered the production of flowers at the time of the survey. Warnock (1995, p. 6) suggested that the Neches River rose-mallow was highly dependent on the water levels of Lake Livingston; therefore, complete inundation of the site may cause extirpation of this population. The unit was occupied at the time of listing and contains the physical or biological features essential to the conservation of the species including the potential for flowing water and an open canopy providing full to partial sun exposure.

The features essential to the conservation of the species in Unit 11 may require special management considerations or protection to address the threats of management of nonnative species and native woody vegetation to maintain openness, and hydrological

changes through potential site alteration or construction projects.

As noted above, there is contradicting evidence regarding the occupancy of Unit 11. However, Unit 11 contains the physical or biological features essential to the conservation of the Neches River rose-mallow and these features support life-history characteristics of the species (such as palustrine wetland habitat with an open canopy). The presence of these traits and the absence of noticeable habitat disturbances makes it likely that this unit remains occupied, despite the last verified record of this species in 1978, and therefore it meets the definition of critical habitat under section 3(5)(A)(i) of the Act because it is within the geographical area occupied by the species at the time of listing. However, we alternatively designate Unit 11 under section 3(5)(A)(ii) of the Act because we consider the unit to be essential for the conservation of the Neches River rose-mallow, regardless of occupancy data. Including this unit in the designation of critical habitat for the Neches River rose-mallow aligns with the conservation strategy for this species. We have determined that the species requires a minimum of 10 populations and that the occupied areas contain suitable habitat (with future special management) to support larger populations of Neches River rose-mallow to meet the conservation goals for the species. The habitat in the 11 units is sufficient for attaining the goal of 10 viable populations throughout the geographic range of the species. Thus, for the purposes of this rulemaking, we determine that Unit 11 meets the definition of critical habitat under section 3(5)(A)(i) or, alternatively, under section 3(5)(A)(ii) of the Act.

Effects of Critical Habitat Designation for the Texas Golden Gladecress and the Neches River Rose-Mallow

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species listed under the Act or result in the destruction or adverse modification of critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of ''destruction or adverse modification'' (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for Texas golden gladecress and Neches River rose-mallow. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Texas Golden Gladecress

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Texas golden gladecress. These activities include, but are not limited to the following.

Actions that would disturb or alter the natural vegetation community or the underlying geology supporting the species to the extent that the critical habitat would be adversely modified, and would also result in the decline of most, or even all, of the plants due to the small areal extent of their populations. Such activities could include, but are not limited to, removal of plant cover, soil, and underlying geology; construction of buildings or new roads or road improvements atop or directly upslope of population sites; application of herbicides that kill above ground plants or seedlings; plantings of pine trees in close proximity to small glade habitats that results in shading and accumulation of leaf litter; and land use practices that directly or indirectly encourage overgrowth by nonnative and native woody species. These activities could adversely affect the primary constituent elements, and in some cases where the primary constituent elements directly underlie the populations and their immediate surroundings, also likely constitute jeopardy to the species.

Neches River Rose-Mallow

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Neches River rose-mallow. These activities include, but are not limited to the following.

Actions that would by themselves, or in conjunction with other land activities, disturb or alter the vegetation community, underlying substrate, and hydrology to the extent that Neches River rose-mallow's critical habitat would be adversely modified, usually resulting in the decline or loss of the plants themselves. Such activities could include, but are not limited to, channelization projects that alter natural flow regimes, changes to site hydrology due to water diversions from streams and rivers, allowing nonnative and native woody riparian species to encroach into occupied sites, grazing during times of drought stress, detrimental roadside management practices including inappropriate frequency and timing of mowing (during blooming), herbicide applications in close proximity to plants, lack of management of feral hog population that causes trampling of habitat and damage to plants, and herbivory by cattle. These activities could adversely affect the primary constituent elements that are required by the species.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: ''The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is designated.'' There are no Department of Defense lands with a completed INRMP within the critical habitat designation.

Application of Section 4(b)(2) of the Act

Exclusions

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared a draft economic analysis of the proposed critical habitat designation and related factors (Industrial Economics 2013a). The draft analysis, dated April 16, 2013, (78 FR 22506) was made available for public review from April 16, 2013, through May 16, 2013. Following the close of the comment period, a final analysis (dated June 27, 2013) of the potential economic effects of the designation was developed taking into consideration the public comments and any new information (Industrial Economics 2013b).

The intent of the final economic analysis (FEA) is to quantify the economic impacts of all potential conservation efforts for Texas golden gladecress and the Neches River rose-mallow; some of these costs will likely be incurred regardless of whether we designate critical habitat (baseline). The economic impact of the final critical habitat designation is analyzed by comparing scenarios both ''with critical habitat'' and ''without critical habitat.'' The ''without critical habitat'' scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur with the designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and

individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA considers those costs that may occur in the 20 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 20-year timeframe.

The final economic analysis quantifies economic impacts of Texas golden gladecress and the Neches River rose-mallow conservation efforts associated with the following categories of activity: (1) Transportation (minor road widening and maintenance) and energy infrastructure projects, (2) land management, and (3) water management. The total present value impacts anticipated to result from the designation of all areas designated as Texas golden gladecress and Neches River rose-mallow critical habitat are approximately $32,000 for Neches River rose-mallow and $478,000 for Texas golden gladecress over 20 years, assuming a 7 percent discount rate. For the Neches River rose-mallow, all incremental costs are likely limited to the additional administrative cost of considering adverse modification during section 7 consultations. For the Texas golden gladecress, incremental costs are associated with consultations that consider adverse modification, as well as expected project modifications and project costs. Please refer to the final economic analysis for a comprehensive discussion of the potential impacts.

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exerting her discretion to exclude any areas from this designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow based on economic impacts.

A copy of the final economic analysis with supporting documents may be obtained by contacting the Texas Coastal Ecological Services Field Office (see **ADDRESSES**) or by downloading from the Internet at *http://www.regulations.gov* (Docket No. FWS–R2–ES–2013–0027) and also at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm.*

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist.

In preparing this final rule, we have determined that the lands within the designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow are not owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security. Consequently, the Secretary is not exerting her discretion to exclude any areas from this final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no HCPs or other management plans for the Texas golden gladecress or the Neches River rose-mallow, and the final designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation based on other relevant impacts.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866, while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the critical habitat designation for Texas golden gladecress or the Neches River rose-mallow will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy

construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts on these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities. We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the Texas golden gladecress or the Neches River rose-mallow. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see ''Application of the 'Adverse Modification Standard' '' section).

Importantly, the incremental impacts of a rule must be both significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

The Service's current understanding of recent case law is that Federal agencies are only required to evaluate the potential impacts of rulemaking on those entities directly regulated by the rulemaking; therefore, they are not required to evaluate the potential impacts to those entities not directly regulated. The designation of critical habitat for an endangered or threatened species only has a regulatory effect where a Federal action agency is involved in a particular action that may affect the designated critical habitat. Under these circumstances, only the Federal action agency is directly regulated by the designation, and, therefore, consistent with the Service's current interpretation of RFA and recent case law, the Service may limit its evaluation of the potential impacts to those identified for Federal action agencies. Under this interpretation, there is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated, such as small businesses. However, Executive Orders 12866 and 13563 direct Federal agencies to assess costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consequently, it is the current practice of the Service to assess to the extent practicable these potential impacts if sufficient data are available, whether or not this analysis is believed by the Service to be strictly required by the RFA. In other words, while the effects analysis required under the RFA is limited to entities directly regulated by the rulemaking, the effects analysis under the Act, consistent with the EO regulatory analysis requirements, can take into consideration impacts to both directly and indirectly impacted entities, where practicable and reasonable.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat will only directly regulate Federal agencies, which are not by definition small business entities. And as such, we certify that, if promulgated, this designation of critical habitat would not have a significant economic impact on a substantial number of small business entities. Therefore, a regulatory flexibility analysis is not required. However, though not necessarily required by the RFA, in our final economic analysis for this rule we considered and evaluated the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

Designation of critical habitat only affects activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the Texas golden gladecress or the Neches River rose-mallow. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see *Application of the ''Adverse Modification Standard''* section).

In our final economic analysis of the critical habitat designation, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of the Texas golden gladecress or the Neches River rose-mallow and the designation of critical habitat. The analysis is based on the estimated impacts associated with the rulemaking as described in Chapters 4 through 5 and Appendix A of the analysis and evaluates the potential for economic impacts related to: (1) Routine transportation projects, utility related activities, and oil and gas development, including interstate natural gas pipelines; (2) land management; and (3) water management.

To determine if the designation of critical habitat for the Texas golden gladecress or the Neches River rose-mallow would affect a substantial number of small entities, we considered the number of small entities affected within the categories of economic activities listed above. In order to determine whether it was appropriate for our agency to certify that this final rule would not have a significant economic impact on a substantial number of small entities, we considered each industry or category individually. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Critical

habitat designation will not affect activities that do not have any Federal involvement; designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the Texas golden gladecress or the Neches River rose-mallow is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect the species. Critical habitat designation means that consultations to avoid the destruction or adverse modification of critical habitat will be incorporated into the existing consultation process.

To ensure broad consideration of impacts on small entities, the Service's economic analysis assessed potential economic effects on small entities resulting from implementation of conservation actions related to the designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow. For the Neches River rose-mallow, no incremental conservation measures to avoid adverse modification of critical habitat over and above those recommended to avoid jeopardy to the species were foreseen, and as such the economic analysis forecast was for few incremental economic impacts as a result of the designation of critical habitat for this species. Incremental impacts forecast were solely related to administrative costs for adverse modification analyses in section 7 consultations. The final economic analysis projected that 16 such consultations would occur. The Service and the Federal action agencies (U.S. Department of Transportation, U.S. Forest Service, Rural Utilities Services and the U.S. Army Corps of Engineers) are not small entities. The TXDOT, the third party participant in four of these consultations, is not a small entity. For ten of these consultations, the third party participant is an electric cooperative. Electric cooperatives may be considered independently owned and operated establishments that are not dominant in their field, thus falling under protection of the RFA. As calculated in this analysis, however, the costs to these entities are *de minimis* and would not be expected to have significant impact.

For the Texas golden gladecress, the incremental costs of this designation included the administrative costs of considering adverse modification during section 7 consultations, the costs of any recommended project modifications, and the costs of new land management projects occurring as a result of the critical habitat designation. Approximately 23 section 7 consultations were projected for this species; three formal and 20 informal, over the next 20 years. As is the case with the Neches River rose-mallow, the Service, Rural Utilities Services, U.S. Department of Transportation, and TXDOT are not small entities. For five of the consultations, two electric cooperatives serve as third party participants. As concluded above for the Neches River rose-mallow, the costs anticipated to be incurred by these entities are *de minimis* (less than $1,000 annually) and would not be projected to result in significant impacts.

We assumed that these consultations would have an equal probability of occurring at any time during the 20-year timeframe and considered these estimates to be conservative because we assumed that all projects could occur independently; that is, we assumed separate consultations for each project. Based on the consultation history, most consultations are unlikely to involve a third party. Electric cooperatives may be considered independently owned and operated establishments that are not dominant in their field, thus falling under protection of the RFA. As calculated in this analysis, however, the costs to these entities are *de minimis* and would not be expected to have significant impact. In conclusion, while two small electric cooperatives are anticipated to incur costs as a result of the designation of critical habitat for Texas golden gladecress and Neches River rose-mallow, the costs are not expected to result in significant impacts to these entities. Consequently, no small entities are anticipated to incur costs as a result of the designation of critical habitat for Texas golden gladecress and Neches River rose-mallow.

In summary, we considered whether this designation would result in a significant economic effect on a substantial number of small entities. Based on the above reasoning and currently available information, we concluded that this rule would not result in a significant economic impact on a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for Texas golden gladecress or the Neches River rose-mallow will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Office of Management and Budget has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration.

The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with Texas golden gladecress or the Neches River rose-mallow conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding,'' and the State, local, or tribal governments ''lack authority'' to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support

Enforcement. ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.''

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments. As stated in the proposed rule, the designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Therefore, this rule does not place an enforceable duty upon State, local, or Tribal governments, or the private sector. The majority of lands designated for critical habitat are owned by private landowners, although the Federal Government and the State of Texas own small portions. None of these government entities fit the definition of small governmental jurisdiction. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Texas golden gladecress and the Neches River rose-mallow in a takings implications assessment. Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' issued March 15, 1988, requires agencies to adhere to certain principals in rulemakings that have takings implications and provide certain information to Office of Management and Budget for any actions with identified takings implications. Section 2(a) of the Executive Order defines takings implications to include any ''regulations that propose or implement licensing, permitting, or other requirements or limitations on private property use, or that require dedications or exactions from owners of private property.'' Our economic analysis found that the incremental effects of the critical habitat designations are largely limited to additional administrative costs. Activities taking place on private property are not likely to be affected. The takings implications assessment concludes that this designation of critical habitat for the Texas golden gladecress and the Neches River rose-mallow does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this final rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in Texas. We received comments from TPWD, Governor's Office, and TXDOT and have addressed them in the Summary of Comments and Recommendations section of the rule. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the Texas golden gladecress and Neches River rose-mallow. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by Office of Management and Budget under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. 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 Office of Management and Budget control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands occupied by the Texas golden gladecress and the Neches River rose-mallow at the time of listing that contain the physical or biological features essential to conservation of the species, and no tribal lands unoccupied by the Texas golden gladecress and the Neches River rose-mallow that are essential for the conservation of the species. Therefore, we are not designating critical habitat for the Texas golden gladecress and the Neches River rose-mallow on tribal lands.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2012–0064 and Docket No. FWS–R2–ES–2013–0027 and upon request from the Corpus Christi Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Corpus Christi Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we are amending part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.96, amend paragraph (a) by adding an entry for ''*Leavenworthia texana* (Texas golden gladecress)'' in alphabetical order under the family Brassicaceae and an entry for ''*Hibiscus dasycalyx* (Neches River rose-mallow)'' in alphabetical order under the family Malvaceae, to read as follows:

§ 17.96 Critical habitat—plants.

* * * * *

(a) *Flowering plants.*

* * * * *

Family Brassicaceae: *Leavenworthia texana* (Texas golden gladecress)

(1) Critical habitat units are depicted for San Augustine and Sabine Counties, Texas, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *Leavenworthia texana* consist of the three primary constituent elements identified for the species:

(i) Exposed outcrops of the Weches Formation within Weches prairies. Within the outcrop sites, there must be bare, exposed bedrock on top-level surfaces or rocky ledges with small depressions where rainwater or seepage can collect. The openings should support Weches Glade native herbaceous plant communities.

(ii) Thin layers of rocky, alkaline soils, underlain by glauconite clay (greenstone, ironstone, bluestone), that are found only on the Weches Formation. Appropriate soils are in the series classifications Nacogdoches clay loam, Trawick gravelly clay loam, or Bub clay loam, ranging in slope from 1–15 percent.

(iii) The outcrop ledges should occur within the glade such that Texas golden gladecress plants remain unshaded for a significant portion of the day, and trees should be far enough away from the outcrop(s) that leaves do not accumulate within the gladecress habitat. The habitat should be relatively clear of nonnative and native invasive plants, especially woody species, or with only a minimal level of invasion.

(3) Critical habitat does not include manmade structures (such as buildings, bridges, aqueducts, runways, well pads, metering stations, roads and the filled areas immediately adjacent to pavement, and other paved areas) and the land on which they are located existing within the legal boundaries on October 11, 2013.

(4) *Critical habitat map units.* Soil Survey Geographic Dataset (SSURGO) was used as a base map layer. The SSURGO is an updated digital version of the Natural Resources Conservation Service county soil surveys. The SSURGO uses recent digital orthophotos and fieldwork to update the original printed surveys. Data layers defining map units were created using the Texas golden gladecress' restriction to the Weches Formation and its tight association with the three soil map units: Nacogdoches clay loam 1–5 percent slope, Trawick gravelly clay loam 5–15 percent slope, or Bub clay loam 2–5 percent slope. In San Augustine and Sabine Counties, these soil types are restricted to the Weches Formation. Locations of all known gladecress populations, as well as potential glade sites, were overlaid on the three afore-named soil mapping units from the San Augustine and Sabine County's soils survey. Potential glade sites were identified using soil map units and a time series of aerial photographs that depicted changes in land cover. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site, at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,* at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027, and at the field office responsible for this designation. You may obtain field office

location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

BILLING CODE 4310–55–P

Index Map

Critical Habitat for *Leavenworthia texana* (Texas golden gladecress)

(6) Unit 1: Geneva Unit, Sabine County, Texas. Map of Unit 1 follows:

Unit 1

Critical Habitat for *Leavenworthia texana* (Texas golden gladecress)

(7) Unit 2: Chapel Hill, San Augustine County. Map of Unit 2 follows:

(8) Unit 3: Southeast Caney Creek Glades, San Augustine County, Texas. Map of Units 3 and 4 follows:

(9) Unit 4: Northwest Caney Creek Glades, San Augustine County, Texas. Map of Unit 4 is depicted in paragraph (8) of this entry.

* * * * *

Family Malvaceae: *Hibiscus dasycalyx* (Neches River rose-mallow)

(1) Critical habitat units are depicted for Cherokee, Harrison, Houston, Nacogdoches, and Trinity Counties, Texas, on the maps below.

(2) Within these areas, the primary constituent element of the physical or biological features essential to the conservation of *Hibiscus dasycalyx* is intermittent or perennial wetlands within the Neches, Sabine, and Angelina River floodplains or Mud and Tantabogue Creek basins that contain:

(i) Hydric alluvial soils and the potential for flowing water when found in depressional sloughs, oxbows,

terraces, side channels, or sand bars; and

(ii) Native woody or associated herbaceous vegetation, largely with an open canopy providing partial to full sun exposure with few to no nonnative species.

(3) Critical habitat does not include manmade structures (such as buildings; bridges; aqueducts; runways; roads; well pads; metering stations; other paved areas; unpaved roads; and the filled areas immediately adjacent to pavement) and the land on which they are located existing within the legal boundaries on October 11, 2013.

(4) *Critical habitat map units.* Data layers defining map units were created on a base of Strategic Mapping Program (StratMap) digital orthophoto quarter-quadrangles (DOQQs), with layers for boundaries and roads. The Service's National Wetlands Inventory maps for the appropriate USGS quads were also downloaded as layers. Critical habitat units were mapped using Geographic Coordinate System (GCS), North American, 1983. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site, at *http://www.fws.gov/southwest/es/ElectronicLibrary/ElectronicLibrary_Main.cfm,* at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0027, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

Index Map

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(6) Unit 1: State Highway 94 right-of-way, Trinity County, Texas. Map of Unit 1 follows:

Unit 1

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(7) Unit 2: Harrison site, Harrison County, Texas. Map of Unit 2 follows:

Unit 2

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(8) Unit 3: Lovelady, Houston County, Texas. Map of Unit 3 follows:

Unit 3

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(9) Unit 4: State Highway 204 right-of-way, Cherokee County, Texas. Map of Unit 4 follows:

Unit 4

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(10) Unit 5: Davy Crockett National Forest, Compartment 55, Houston County, Texas. Map of Unit 5 follows:

(11) Unit 6: Davy Crockett National Forest, Compartment 11, Houston County, Texas. Map of Unit 6 follows:

Unit 6

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(12) Unit 7: Davy Crockett National Forest, Compartment 20, Houston County, Texas. Map of Unit 7 follows:

Unit 7

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(13) Unit 8: Davy Crockett National Forest, Compartment 16, Houston County, Texas. Map of Unit 8 follows:

Unit 8

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(14) Unit 9: Champion site, Trinity County, Texas. Map of Unit 9 follows:

Units 9A & 9B

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(15) Unit 10: Mill Creek Gardens, Nacogdoches County, Texas. Map of Unit 10 follows:

Unit 10

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

(16) Unit 11: Camp Olympia, Trinity County, Texas. Map of Unit 11 follows:

Unit 11

Critical Habitat for *Hibiscus dasycalyx* (Neches River rose-mallow)

* * * * *

Dated: September 5, 2013.

Michael Bean,

Acting Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2013–22083 Filed 9–10–13; 8:45 am]

BILLING CODE 4310–55–C

FEDERAL REGISTER

Vol. 78 Wednesday,
No. 176 September 11, 2013

Part VII

The President

Proclamation 9013—National Grandparents Day, 2013
Proclamation 9014—National Days of Prayer and Remembrance, 2013

Federal Register
Vol. 78, No. 176
Wednesday, September 11, 2013

Presidential Documents

Title 3—

The President

Proclamation 9013 of September 6, 2013

National Grandparents Day, 2013

By the President of the United States of America

A Proclamation

In every corner of our country and across all walks of life, grandparents are a tremendous source of wisdom, strength, and joy. They are caregivers, teachers, and friends—windows to the past and guideposts for the future. On National Grandparents Day, America pauses to honor the bedrocks of our families and thank every grandmother and grandfather for their immeasurable contributions to our country.

Our grandparents' generations made America what it is today. They led our Nation through times of war, heralded new ages of innovation, and tested the limits of human imagination. They challenged longstanding prejudices and shattered barriers, both cultural and scientific. In our homes and our communities, grandparents pass down the values that have led generations of Americans to live well and give back. As individuals, as families, and as a society, we have an unshakable obligation to provide the care and support our grandparents have earned. Together, let us guarantee the right of every American to live out their golden years in dignity and security.

Today, we reflect on the ways our grandparents have enriched our lives, and we celebrate their contributions to the life of our Nation.

NOW, THEREFORE, I, BARACK OBAMA, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 8, 2013, as National Grandparents Day. I call upon all Americans to take the time to honor their own grandparents and those in their community.

IN WITNESS WHEREOF, I have hereunto set my hand this sixth day of September, in the year of our Lord two thousand thirteen, and of the Independence of the United States of America the two hundred and thirty-eighth.

[FR Doc. 2013–22271
Filed 9–10–13; 11:15 am]
Billing code 3295–F3

Presidential Documents

Proclamation 9014 of September 6, 2013

National Days of Prayer and Remembrance, 2013

By the President of the United States of America

A Proclamation

This week, Americans come together to mark the 12th anniversary of a day that shook our country to its core. Where two towers once cast a shadow, men and women gather in the early light to pay their respects. In a Pennsylvania field once scarred by debris, bells ring out and fingers trace over names etched in white marble. At the Pentagon, where a single stone still bears the scars of fire, a Nation honors souls who now know peace.

On this anniversary, images of darkness are never far from our thoughts. We remember planes cutting through a clear September sky, black smoke rising from the ruins below. These images will never leave us. But Scripture teaches us that light shines even in the darkness, and the darkness has not overcome it.

When the first calls for help reached squad cars, ambulances, and ladder companies, there was no hesitation. First responders rushed to the scene. They stormed up the stairs and into the flames. Aboard Flight 93, heroic passengers and crew members gave everything they had to prevent even more devastation.

Their legacy lives on in those they saved and in the memories we keep. Most of all, it lives on in the spirit they embodied: compassion, resilience, unity. Many of those we lost set aside their own well-being in the hope they could save someone they would never know.

That selflessness shows the best of who we are as a people. And for more than a decade, that same selflessness has summoned a new generation to serve in our Armed Forces. These solemn days also call upon us to reflect on their extraordinary service and sacrifice and to rededicate ourselves to showing our troops, our veterans, and their families the fullest support of a grateful Nation.

Finally, as we honor those who have borne so much since 9/11, let us turn our thoughts once again toward renewal. When shock and confusion could have torn us apart, we chose instead to move forward together, as one people. We have proven our resilience. We have recovered and rebuilt, better and brighter. We have kept faith with our oldest American beliefs. Years from now, these acts will reveal the true legacy of that day—of a safer world, a stronger Nation, and a country more united than ever before.

NOW, THEREFORE, I, BARACK OBAMA, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim Friday, September 6 through Sunday, September 8, 2013, as National Days of Prayer and Remembrance. I ask that the people of the United States honor and remember the victims of September 11, 2001, and their loved ones through prayer, contemplation, memorial services, the visiting of memorials, the ringing of bells, evening candlelight remembrance vigils, and other appropriate ceremonies and activities. I invite people around the world to participate in this commemoration.

IN WITNESS WHEREOF, I have hereunto set my hand this sixth day of September, in the year of our Lord two thousand thirteen, and of the Independence of the United States of America the two hundred and thirty-eighth.

[FR Doc. 2013–22274
Filed 9–10–13; 11:15 am]
Billing code 3295–F3

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