DEPARTMENT OF ENERGY

10 CFR Parts 429 and 430

[Docket Number EERE–2013–BT–STD–0051]

RIN 1904–AD09

Energy Conservation Program: Energy Conservation Standards for General Service Lamps

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

ACTION: Proposed definition and data availability.

SUMMARY: On March 17, 2016, DOE published a notice of proposed rulemaking (NOPR) proposing standards for general service lamps (GSLs) pursuant to the Energy Policy and Conservation Act of 1975 (EPCA), as amended. During the subsequent public meeting and in written comments, stakeholders provided additional data and raised concerns regarding the expansion of scope in the proposed GSL definition and DOE's approach to analyzing the 22 general service incandescent lamp exemptions. In response to several of those comments, DOE collected additional data and is publishing this document to propose a revised definition of GSL; announce the availability of National Electrical Manufacturers Association (NEMA) data and supplemental data collected by DOE; request public comment on proposed definitions and compiled data; and request any additional data that stakeholders may have in support of this evaluation.

DATES: *Comments:* DOE will accept comments, data, and information regarding this notice of proposed definition and data availability submitted no later than November 8, 2016. See section VI, ''Public Participation,'' of this document for details.

Meeting: DOE will hold a public meeting on October 21, 2016, from 9:30 a.m. to 4:00 p.m., in Washington, DC The meeting will also be broadcast as a webinar. See section VI, ''Public Participation,'' for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

ADDRESSES: The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room 1E–245, 1000 Independence Avenue SW., Washington, DC 20585. Any foreign national wishing to participate in the meeting should advise DOE as soon as possible by contacting *regina.washington@ee.doe.gov* to initiate the necessary procedures. Please also note that any person wishing to bring a laptop into the Forrestal Building will be required to obtain a property pass. Visitors should avoid bringing laptops, or allow an extra 45 minutes. Persons may also attend the public meeting via webinar.

Instructions: Any comments submitted must identify the notice of proposed definition and data availability for GSLs, and provide docket number EE–2013–BT–STD–0051 and/or regulatory information number (RIN) 1904–AD09. 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: GSL2013STD0051@ee.doe.gov*. Include the docket number and/or RIN in the subject line of the message. Submit electronic comments in WordPerfect, Microsoft Word, PDF, or ASCII file format, and avoid the use of special characters or any form of encryption.

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

4. *Hand Delivery/Courier:* Appliance and Equipment Program, U.S. Department of Energy, Building Technologies Office, 950 L'Enfant Plaza SW., Suite 600, Washington, DC 20024. Telephone: (202) 586–6636. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimilies (faxes) will be accepted. For detailed instructions on submitting comments and additional information on the rulemaking process, see section VI 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 *www.regulations.gov.* All documents in the docket are listed in the *www.regulations.gov* index. However, some documents listed in the index may not be publicly available, such as those containing information that is exempt from public disclosure.

A link to the docket Web page can be found at: *https://www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=4.* This Web page contains a link to the docket for this notice on the *www.regulations.gov* site. The *www.regulations.gov* Web page contains simple instructions on how to access all documents, including public comments, in the docket. See section VI, ''Public Participation,'' for further information on how to submit comments through *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT:

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE–2J, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 287–1604. Email: *gsl@ee.doe.gov*

Ms. Celia Sher, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW., Washington, DC 20585–0121. Telephone: (202) 287–6122. Email: *celia.sher@hq.doe.gov*

For further information on how to submit a comment, review other public comments and the docket, or participate in the public meeting, contact the Appliance and Equipment Standards Program Staff at (202) 586–6636 or by email: *Appliance_Standards_Public_Meetings@ee.doe.gov*.

SUPPLEMENTARY INFORMATION: DOE intends to incorporate by reference the following industry standards into 10 CFR part 430:

(1) American National Standards Institute C81.61–2016 (''ANSI C81.61–2016''), Electric Lamp Bases—Specifications for Bases (Caps) for Electric Lamps, dated April 20, 2016.

A copy of ANSI C81.61–2016 can be obtained from the American National Standards Institute, 25 W. 43rd Street, 4th Floor, New York, NY 10036, (212) 642–4900, or go to *http://webstore.ansi.org.*

(2) International Electrotechnical Commission 60061–1:2005 (''IEC 60061–1:2005''), Lamp caps and holders together with gauges for the control of interchangeability and safety—Part 1: Lamp caps, Amendment 35, Edition 3, dated January 27, 2005.

A copy of IEC 60061–1:2005 can be obtained from the American National Standards Institute, 25 W. 43rd Street, 4th Floor, New York, NY 10036, (212) 642–4900, or go to *http://webstore.ansi.org.*

(3) Underwriter Laboratories 1598C–2014 (''UL 1598C–2014''), Standard for Light-Emitting Diode Retrofit Luminaire Conversion Kits, First Edition, dated January 16, 2014.

A copy of UL 1598C–2014 can be obtained from Comm 2000, 151 Eastern

Avenue, Bensenville, IL 60106, 1–888–853–3503, or go to *http://ulstandards.ul.com/standards-catalog/.*

For a further discussion of these standards, see section V.M.

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I. Introduction

Title III, Part B of the Energy Policy and Conservation Act of 1975 (EPCA or the Act), Public Law 94–163 (42 U.S.C. 6291–6309, as codified) established the Energy Conservation Program for Consumer Products Other Than Automobiles, a program covering most major household appliances (collectively referred to as ''covered products'').[1] Subsequent amendments expanded Title III of EPCA to include additional consumer products, including general service lamps (GSLs)—the products that are the focus of this notice of proposed definition and data availability (NOPDDA).

In particular, amendments to EPCA in the Energy Independence and Security Act of 2007 (EISA 2007) directed DOE to conduct two rulemaking cycles to evaluate energy conservation standards for GSLs. (42 U.S.C. 6295(i)(6)(A)–(B)) For the first rulemaking cycle, EPCA, as amended by EISA 2007, directs DOE to initiate a rulemaking no later than January 1, 2014, to evaluate standards for GSLs and determine whether exemptions for certain incandescent lamps should be maintained or discontinued. (42 U.S.C. 6295(i)(6)(A)(i)) The scope of the rulemaking is not limited to incandescent lamp technologies. (42 U.S.C. 6295(i)(6)(A)(ii)) Further, for this first cycle of rulemaking, the EISA 2007 amendments provide that DOE must consider a minimum standard of 45 lumens per watt (lm/W). (42 U.S.C. 6295(i)(6)(A)(ii)) If DOE fails to meet the requirements of 42 U.S.C. 6295(i)(6)(A)(i)–(iv) or the final rule from the first rulemaking cycle does not produce savings greater than or equal to the savings from a minimum efficacy standard of 45 lm/W, the statute provides a ''backstop requirement'' under which GSLs would be subject to a minimum 45 lm/W standard beginning on January 1, 2020. (42 U.S.C. 6295(i)(6)(A)(v))

In March 2016, DOE published a notice of proposed rulemaking (NOPR) that proposed a revised definition of GSL and energy conservation standards for certain GSLs (hereafter the ''March 2016 GSL ECS NOPR''). 81 FR 14528 (March 17, 2016). In conjunction with the NOPR, DOE also published on its Web site the complete technical support document (TSD) for the proposed rule, which described the analyses DOE conducted and included technical documentation for each analysis. The TSD also included the life cycle cost (LCC) spreadsheet, the national impact analysis spreadsheet, and the manufacturer impact analysis (MIA) spreadsheet.[2]

DOE held a public meeting on April 20, 2016, to hear oral comments on and solicit information relevant to the proposed rule. At this meeting, DOE heard concerns from stakeholders regarding the expansion of scope in the proposed GSL definition and DOE's approach to analyzing the 22 exemptions. In addition, DOE received written comments that reiterated these concerns and also provided additional data for DOE's consideration. Specifically, the National Electrical Manufacturers Association (NEMA) provided new data and information on the 22 exempted lamp types to inform DOE's evaluation of whether the exemptions should be maintained or discontinued as required by 42 U.S.C. 6295(i)(6)(A)(i)(II).

Since the publication of the NOPR, DOE has analyzed the data submitted by NEMA and collected additional data where available. DOE is publishing this NOPDDA to: (1) Propose a revised definition of GSL; (2) announce the availability of the NEMA data and supplemental data collected by DOE; (3) request public comment on proposed definitions and compiled data; and (4) request any additional data that stakeholders may have in support of this evaluation. The following sections describe the revised definition and additional data in more detail. After considering the comments received, DOE will publish a final rule.

II. Proposed Definition of General Service Lamp

A. General Service Lamp Definition

The term general service lamp (GSL) includes general service incandescent lamps (GSILs), compact fluorescent lamps (CFLs), general service light-emitting diode (LED) and organic light-emitting diode (OLED) lamps, and any other lamps that DOE determines are used to satisfy lighting applications traditionally served by GSILs; however, GSLs do not include any lighting application or bulb shape excluded from the ''general service incandescent lamp'' definition, or any general service fluorescent lamp or incandescent reflector lamp. (42 U.S.C. 6291(30)(BB))

DOE has the authority to consider additional lamps that it determines are used to satisfy lighting applications traditionally served by GSILs. (42 U.S.C. 6291(30)(BB)(i)(IV)) In the March 2016

[1] Part B was re-designated Part A on codification in the U.S. Code for editorial reasons.

[2] The spreadsheets developed for this rulemaking proceeding are available at: *https://www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=4.*

GSL ECS NOPR, DOE proposed to define a general service lamp as any lamp intended to serve in general lighting applications and that has the following basic characteristics: (1) An ANSI base (with the exclusion of light fixtures); (2) a lumen output of 310 lumens or greater; (3) an ability to operate at any voltage; (4) is not or could not be the subject of other rulemakings; and (5) no designation or label for use in certain non-general applications (see section II.A.4 for more information). ''General lighting application'' is currently defined at 10 CFR 430.2 as lighting that provides an interior or exterior area with overall illumination.

More specifically, DOE proposed the following definition for GSL in the March 2016 GSL ECS NOPR:

General service lamp means a lamp that has an ANSI base, operates at any voltage, has an initial lumen output of 310 lumens or greater (or 232 lumens or greater for modified spectrum general service incandescent lamps), is not a light fixture, is not an LED downlight retrofit kit, and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light-emitting diode lamps, but do not include general service fluorescent lamps; incandescent reflector lamps; mercury vapor lamps; appliance lamps; black light lamps; bug lamps; colored lamps; infrared lamps; marine signal lamps; mine service lamps; plant light lamps; sign service lamps; traffic signal lamps; and medium screw base incandescent lamps that are left-hand thread lamps, marine lamps, reflector lamps, rough service lamps, shatter-resistant lamps (including a shatter-proof lamp and a shatter-protected lamp), silver bowl lamps, showcase lamps, 3-way incandescent lamps, vibration service lamps, G shape lamps as defined in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1–2002 (incorporated by reference; see § 430.3) with a diameter of 5 inches or more, T shape lamps as defined in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1–2002 (incorporated by reference; see § 430.3) and that use not more than 40 watts or have a length of more than 10 inches, and B, BA, CA, F, G16–1/2, G–25, G30, S, or M–14 lamps as defined in ANSI C79.1–2002 (incorporated by reference; see § 430.3) and ANSI C78.20 (incorporated by reference; see § 430.3) of 40 watts or less.

DOE received some general comments on the proposed definition. General Electric Lighting (GE) asserted that Congress did not give DOE authority to expand the definition of GSL to include all lamps that have any ANSI base, operate at any voltage, and produce general illumination, and that the expanded definition in conjunction with the backstop will eliminate specialty and niche products with no possible substitutes. (GE, No. 70 at pp. 7–8) The International Association of Lighting Designers (IALD) stated that the broadened scope of GSLs was going beyond readily available technology. (IALD, No. 62 at p. 3) Philips Lighting (Philips) also stated it did not support the broadened definition of GSL and referred to detailed comments from NEMA on the matter. (Philips, No. 71 at p. 3) Earthjustice stated that the proposed definition makes it clear what lamp types are covered. (Earthjustice, Public Meeting Transcript, No. 54 at p. 24) However, DOE also received several comments expressing concern that the definition did not clearly specify the scope of lamps that are GSLs.

The California Energy Commission (CEC) stated that many lamp types are not intended for general service applications and should not be included in the GSL definition, but could appear to be under the proposed definition, leading to uncertainty and differences in interpretation between manufacturers. (CEC, No. 69 at p. 18) CEC specifically identified directional lamps less than 2.25 inches in diameter and MR16 lamps as examples in which the coverage of the GSL definition is uncertain. CEC recommended that DOE either state the GSL scope of coverage explicitly by listing specific voltages, wattages, lumen outputs, or similar attributes, or define ''general service application'' to clarify what applications are general service in nature. (CEC, No. 69 at pp. 18–19) Westinghouse agreed, noting this ambiguity could introduce compliance issues for manufacturers. (Westinghouse, Public Meeting Transcript, No. 54 at p. 39)

GE recommended that DOE define GSLs to be clear in not including specialty incandescent or specialty halogen lamps with specialty bases that operate at other than 120 volts (or MR lamps that operate on a 120 V/12 V transformer) and lamps that have a lumen output of greater than 2,600 lumens. GE also recommended defining specialty base and specialty lamp in a separate definition in order to limit the definition length and improve readability. (GE, No. 70 at p. 10) Further, GE suggested DOE clearly state that products designed or labeled for use in non-general applications should not be included in the definition. (GE, Public Meeting Transcript, No. 54 at pp. 36–37) In contrast, Westinghouse and ASAP voiced concern for the potential loophole that could exist if products could be excluded from scope by simply indicating on their label that they are intended for non-general applications. (Westinghouse, Public Meeting Transcript, No. 54 at p. 39; ASAP, Public Meeting Transcript, No. 54 at p. 43)

NEMA suggested an alternative definition of general service lamp that would modify the proposed definition in the March 2016 GSL ECS NOPR by stating that a general service lamp is used to satisfy a majority of lighting applications and is not a specialty base lamp nor a specialty lamp. Further, NEMA suggested that the definition should specify that general service lamps operate at a rated voltage from 110 to 130 V or 11 to 13 V; have an initial lumen output of 232 lumens or greater for modified spectrum general service incandescent lamps; and have an initial lumen output of 2,600 lumens or less. Additionally, NEMA recommended a definition for ''specialty lamp'' and ''specialty base lamp.'' (NEMA, No. 66 at pp. 43–44) NEMA commented that DOE should follow the Federal Trade Commission's (FTC's) approach to labeling specialty lamps. NEMA explained that instead of amending the definition of general service lamp, FTC incrementally categorized certain specialty lamps as ''specialty consumer lamps.'' (NEMA, No. 66 at p. 19)

The California Investor Owned Utilities (CA IOUs) agreed that a more explicit list of covered lamp types would be helpful but only for informational purposes and not for inclusion in the regulatory text. (CA IOUs, Public Meeting Transcript, No. 54 at pp. 50–51) The Energy Efficiency Advocates (EEAs) [3] recommended that, after publication of the final rule, DOE host an informational webinar on the lamp types that are GSLs and how standards apply to them. (EEAs, No. 64 at p. 2) The Northeast Energy Efficiency Partnerships (NEEP) suggested DOE include a table in the final rule that summarizes the scope of coverage by lamp types. (NEEP, No. 67 at p. 4)

As discussed previously in this section, in the March 2016 GSL ECS NOPR DOE interpreted general service

[3] The Appliance Standards Awareness Project, Natural Resources Defense Council, Alliance to Save Energy, American Council for an Energy Efficient Economy, Consumer Federation of America, Consumers Union, National Consumer Law Center, Northeast Energy Efficiency Partnerships, and Northwest Energy Efficiency Alliance.

lamps as lamps intended to serve in general lighting applications and that have the following basic characteristics: (1) An ANSI base (with the exclusion of light fixtures); (2) a lumen output of 310 lumens or greater; (3) an ability to operate at any voltage; (4) are not or could not be the subject of other rulemakings; and (5) no designation or label for use in certain non-general applications. DOE is generally maintaining this interpretation of GSL when considering whether additional lamps are used to satisfy lighting applications traditionally served by GSILs (see section II.A.4 for modifications to lumen output and other rulemaking criteria). To delineate the lamp types considered to be GSLs, DOE is continuing to propose a revised definition of ''general service lamp'' in § 430.2 to capture these criteria and the exemptions. DOE has revisited the proposed definition of GSL, including the exemptions contained in the GSIL and GSL definitions, for this notice. DOE discusses key aspects of the proposed definition of GSL and additional comments from stakeholders in the following sections.

1. GSILs

As stated previously, GSLs include GSILs. (42 U.S.C. 6291(30)(BB)(i)(I)) The definition of ''general service incandescent lamp'' is as follows:

General service incandescent lamp means a standard incandescent or halogen type lamp that is intended for general service applications; has a medium screw base; has a lumen range of not less than 310 lumens and not more than 2,600 lumens or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens; and is capable of being operated at a voltage range at least partially within 110 and 130 volts; however this definition does not apply to the following incandescent lamps—

(1) An appliance lamp;
(2) A black light lamp;
(3) A bug lamp;
(4) A colored lamp;
(5) An infrared lamp;
(6) A left-hand thread lamp;
(7) A marine lamp;
(8) A marine signal service lamp;
(9) A mine service lamp;
(10) A plant light lamp;
(11) A reflector lamp;
(12) A rough service lamp;
(13) A shatter-resistant lamp (including a shatter-proof lamp and a shatter-protected lamp);
(14) A sign service lamp;
(15) A silver bowl lamp;
(16) A showcase lamp;
(17) A 3-way incandescent lamp;
(18) A traffic signal lamp;
(19) A vibration service lamp;
(20) A G shape lamp (as defined in ANSI C78.20 and ANSI C79.1–2002) with a diameter of 5 inches or more;
(21) A T shape lamp (as defined in ANSI C78.20 and ANSI C79.1–2002) and that uses not more than 40 watts or has a length of more than 10 inches; and
(22) A B, BA, CA, F, G16–1/2, G–25, G30, S, or M–14 lamp (as defined in ANSI C79.1–2002 and ANSI C78.20) of 40 watts or less.

10 CFR 430.2

In the March 2016 GSL ECS NOPR, DOE declined to make a determination about discontinuing the 22 exemptions from the GSIL definition. In the NOPR, DOE initially concluded that, because the Appropriations Rider [4] prohibits DOE from using appropriated funds to implement or enforce standards for GSILs, DOE could not re-evaluate the existing exemptions for GSILs in the GSL rulemaking. 81 FR 14540. Specifically, DOE stated that, by definition, GSL does not apply to any lighting application or bulb shape excluded from the ''general service incandescent lamp'' definition. (42 U.S.C. 6291(30)(BB)) Therefore, based on the GSL definition, the 22 incandescent lamps that are excluded in EPCA from the definition of GSIL would not be GSLs. Further, DOE stated that the formerly exempted lamp types would have to be considered GSILs in order for DOE to regulate the lamps under its authority to promulgate standards for GSLs. Since the Appropriations Rider prohibits the expenditure of funds to implement or enforce standards for GSILs, DOE reasoned that it would not be able to establish or amend energy conservation standards for any of these lamps. As a result, making a determination about discontinuing the exemption from the GSIL definition for any of the 22 medium screw base lamps would make no difference in the GSL rulemaking, and DOE declined to address the exemptions at that time. 81 FR 14541.

A number of commenters stated that EPCA requires DOE to determine whether the exemptions of incandescent lamps should be discontinued or maintained as required under 42 U.S.C. 6295(i)(6)(A)(i)(II). (ASAP, Public Meeting Transcript, No. 54 at p. 12; NRDC, Public Meeting Transcript, No. 54 at pp. 16–17; CEC, No. 69 at p. 20; Earthjustice, No. 61 at pp. 2–3; Philips, No. 71 p. 4) Earthjustice stated that the definition of GSL proposed in the March 2016 GSL ECS NOPR unlawfully maintained exemptions for certain incandescent lamps, including the 22 types of lamps excluded from EPCA's definition of ''general service incandescent lamp.'' (Earthjustice, No. 61 at p. 1) CEC commented that DOE should either correctly interpret the Appropriations Rider as allowing DOE to determine whether to discontinue the 22 lamp exemptions and examine them as technology neutral, or exempt all 22 lamp types regardless of technology and allow states to set appropriate standards. (CEC, No. 69 at pp. 20–21)

Several other commenters disagreed with DOE's approach in the proposed rule regarding the 22 exemptions for GSILs. NEMA asserted that DOE has impermissibly read EPCA's use of the terms ''exempted'' and ''excluded'' as the same term, and that 42 U.S.C. 6295(i)(6)(A)(i)(II) does not authorize DOE to discontinue the exemptions for the 22 lamps listed under the GSIL definition. (NEMA, No. 66 at pp. 17–18) DOE acknowledges that EPCA uses both the terms ''exclusion'' and ''exempted''; however, in the context of GSLs and GSILs, DOE understands the term ''exempted'' to reference lamps listed under the ''Exclusions'' heading in the GSIL definition. EPCA does not establish any ''exemptions'' for GSLs or GSILs using that term; so if ''exempted'' does not refer to ''exclusions'' or something comparable then the instruction in 42 U.S.C. 6295(i)(6)(A)(i)(II) has no application. The word that EPCA uses for the concept of ''exempting'' certain lamps from being GSILs or GSLs is ''excluding''; and DOE accordingly takes ''exempted'' to refer to those exclusions. Furthermore, DOE interprets Congress' intent to be for DOE to evaluate whether certain lamps that have been excluded from the GSIL definition should be subject to any future GSL standards. DOE concludes that to leave certain of the exemptions in place would diminish the energy savings that would otherwise be achieved because the excluded lamps would provide a less efficient option to meet the same general lighting application.

Upon consideration of the comments received on the March 2016 GSL ECS NOPR and further review of the relevant authorities, DOE has revisited its interpretation with respect to the proposed definition of GSL and application of the Appropriations Rider. In the March 2016 GSL ECS NOPR, DOE stated that it believed it is prohibited by the Appropriations Rider from modifying the existing exemptions for GSILs in this rulemaking. 81 FR 14540.

[4] The Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113–235, Dec. 16, 2014).

However, the focus of the NOPR was to propose new energy conservation standards for GSLs; in that context, DOE did not propose to modify the GSIL exemptions and then impose new standards for GSILs. By contrast, this proposed rule neither implements nor seeks to enforce any standard. Rather, this proposed rule merely seeks to define what constitutes a GSIL and what constitutes a GSL. As noted above, the Appropriations Rider restricts DOE from ''implementing or enforcing'' the standards imposed on GSILs by 10 CFR 430.32(x). It does not preclude DOE from utilizing its authority under EPCA to alter the scope of GSIL and GSL. DOE believes this is a reasonable interpretation of the Appropriations Rider because, in evaluating the exemptions, DOE is following a directive related to a GSL rulemaking to define the scope of GSLs. DOE is not conducting any analysis in support of establishing energy conservation standards for GSILs. Although a collateral effect is to broaden the scope of the GSIL definition, DOE is simply defining what lamps constitute GSLs so that both manufacturers and DOE can understand how the regulations apply to the market. Without such a definition of GSLs, regulated entities would face uncertainty as to what is a GSL. Furthermore, as noted above, leaving certain exemptions in place would diminish the energy savings that would otherwise be achieved because the excluded lamps would provide a less efficient option to meet the same general service lighting application.

A lamp exempted from the GSIL definition is not a covered GSIL and is not subject to the regulations for GSILs. However, DOE is directed as part of the GSL rulemaking to determine whether certain of these exemptions should be maintained or discontinued based, in part, on exempted lamp sales collected from manufacturers. (42 U.S.C. 6295(i)(6)(A)(i)(II)). If DOE discontinues a given exemption, medium screw base incandescent lamps subject to that exemption will become GSILs and thus GSLs; CFLs and general service LED and OLED lamps of that lighting application or bulb shape will become GSLs; and other lamps of that lighting application or bulb shape will also become GSLs, to the extent DOE determines those lamps are used to satisfy lighting applications traditionally served by general service incandescent lamps.

In this proposed rule, DOE evaluates the 22 lighting applications or bulb shapes exempted under the GSIL definition to determine whether such exemptions should be maintained or discontinued.

As stated previously, the definition of GSIL lists 22 lamp types that are not included in the definition, and these lamps are described under the heading ''Exclusions.'' (42 U.S.C. 6291(30)(D)(ii)) Under the authority for the GSL rulemaking, EPCA directs DOE to consider whether to maintain the ''exemptions'' for certain incandescent lamps, based, in part, on exempted lamp sales data collected by DOE. (42 U.S.C. 6295(i)(6)(A)(i)(II)) For four of the lamps included in the list of 22 lamps (*i.e.,* rough service lamps, vibration service lamps, 3-way incandescent lamps, and shatter-resistant lamps), EPCA directs DOE to collect sales data and prescribe standards for these lamps when certain sales thresholds are met. (42 U.S.C. 6295(l)(4)) DOE understands the reference to ''data collected'' by DOE under the GSL rulemaking provision to mean the data collected as required for rough service lamps, vibration service lamps, 3-way incandescent lamps, and shatter-resistant lamps (*i.e.,* lamps listed under the ''Exclusion'' heading). Here, Congress appears to be using the term ''exempted'' to refer to lamps under the ''Exclusion'' heading. Moreover, Congress used ''exempted'' to refer to lamps identified under ''exclusions'' in prior amendments to the lamp provisions in EPCA. In section 321 of EISA, Congress provided that an individual could petition DOE to establish standards for lamps *excluded* from the definition of GSL, and that such petition must include evidence that the sales of *exempted* incandescent lamps have increased. Public Law 140–110; 121 Stat. 1492, 1528. Again, the use of ''excluded'' appears synonymous with ''exempted'' in the context of GSLs. As such, DOE understands the direction to determine whether to maintain the exemptions for certain incandescent lamps to include a determination of whether to include in the definition of GSL lamps meeting the description of the 22 lighting applications or bulb shapes.

NEMA also argued that because incandescent appliance lamps; T shape lamps, B, BA, CA, F, G16–1/2, G25, G30, S, or M14-shaped lamps; and vibration service incandescent lamps are subject to standards, there is no exemption from energy conservation standards to maintain or discontinue for these lamps under 42 U.S.C. 6295(i)(6)(a)(i)(II). NEMA stated that in defining these specialty lamps, Congress imposed a maximum quantity of energy use standard that had the actual effect of eliminating higher wattage versions of these lamps from the market and saving energy. Thus, these wattage caps are energy conservation standards. (NEMA, No. 66 at p. 18)

DOE disagrees with NEMA's interpretation of the definitions of the identified lamps. The ''standards'' to which NEMA refers for these lamps are the maximum wattage limits set under EPCA in defining the lamps for the purpose of excluding them from the definition of GSIL. The maximum wattage provides definitional boundaries, not standards. (42 U.S.C. 6291(30)(T), (D)(ii)(XXI) and (D)(ii)(XXII)) Appliance lamps and T, B, BA, CA, F, G16–1/2, G–25, G30, S, and M–14 shape incandescent lamps are expressly listed under the exclusion provision in the definition of GSIL. (42 U.S.C. 6291(30)(D)(ii)(I), (XXI), and (XXII))

DOE also received comments regarding subjecting specialty lamp types to the backstop. NEMA disagreed with DOE's position that the backstop will apply to specialty lamps typically used in niche applications. (NEMA, No. 66 at p. 84) NEMA and Osram Sylvania, Inc (OSI) noted that it is not necessary to establish standards for lamps used in unique applications and that do not consume significant amounts of energy. (NEMA, No. 66 at pp. 83–84; OSI, No. 73 at pp. 12–13) NEMA pointed out that one of the more popular exempt specialty lamps, globe shaped incandescent lamps, did not meet the annual energy use threshold to be considered for regulation under EPCA. NEMA also stated that the market will remove specialty CFLs without regulatory action and that standards on such products would impose an unnecessary additional regulatory burden. (NEMA, No. 66 at p. 48)

NEMA appears to be arguing that DOE lacks authority to establish an energy conservation standard for lamps that would otherwise be subject to the exemptions listed as part of the GSIL definition. DOE disagrees. As discussed previously, in a paragraph entitled ''Standards for general service lamps,'' EPCA directs DOE to consider whether to establish or maintain the exemptions for certain incandescent lamps as part of a rulemaking to establish energy conservation standards for GSLs. In doing so, EPCA gives DOE authority to evaluate the scope of lamps that are GSLs and to set standards for them.

Based on the comments received and further review of DOE's obligations, DOE is evaluating each of the 22 exemptions to see whether it should be maintained or discontinued, based in part on sales data. DOE proposes to make these decisions in light of the fact that GSLs will become subject to the 45 lm/W statutory standard in 2020. Lamps

for which DOE continues the exemptions will not be subject to the standard, so DOE proposes to discontinue a given exemption if the continuation of the exemption would undermine the 45 lm/W standard by providing a convenient unregulated alternative to GSLs. DOE understands the exclusions to exist, in part, as a reflection of past practice and, in part, because of uncertainty when the GSL standard was enacted about whether excluded lamps are only specialty products or are substitutable for broader-use lamps. The directive of Congress to reconsider the exclusions demonstrates its intent for DOE to take a fresh look at whether excluded lamps should continue to be treated as specialty products. DOE will use the information available, including sales data, to assess that question for each exemption. Thus, DOE proposes to discontinue an exemption if lamps within that exemption are capable of providing general illumination like other general service lamps (*e.g.,* GSILs, MBCFLs, general service LEDs) and if sales data suggest that substantial numbers of consumers are using those lamps for general illumination.

The following sections assess the exemptions and present DOE's preliminary determination of whether the exemption should be maintained or discontinued. DOE referenced a combination of sources for available information on lamp sales. Specifically, DOE considered the sales data submitted by NEMA as required by 42 U.S.C. 6295(l)(4)(B) for rough service lamps, vibration service lamps, 3-way incandescent lamps, 2,601–3,300 lumen general service incandescent lamps, and shatter-resistant lamps; [5] information submitted by NEMA in its public comment in support of the GSL rulemaking; extrapolation from DOE's product database based on an inventory of available products; and data available from rulemakings for other covered products. DOE believes these sources of data and information are sufficient representations of sales data as required, in part, by the statute and thus are an appropriate basis on which to make its preliminary determination.

In addition to considering sales data, DOE also considered whether an exempted lamp could be used as a replacement for a GSIL. This consideration of ''lamp switching'' is to minimize the potential for creating a loophole in any GSL standard(s). If DOE were to maintain an exemption for a lamp that has the same consumer utility as a lamp subject to a standard, the use of such lamps could increase in response to standards. This would result in less energy savings being realized as the market shifted to an increased use of the unregulated lamps.

Table II.1 summarizes the status of the exemptions, the sales data underlying DOE's decision, and the reasons supporting DOE's decision.

TABLE II.1—DETERMINATIONS REGARDING EXEMPTIONS

GSIL exempted lamp category	Estimated sales data (units annual sales)	Additional factors DOE considered	DOE's preliminary determination on exemption status
Appliance Lamp	<3 million		Maintain exemption.
Black Light Lamp	<1 million		Maintain exemption.
Bug Lamp	<1 million		Maintain exemption.
Colored Lamp	<2 million		Maintain exemption.
Infrared Lamp	<1 million		Maintain exemption.
Left-Hand Thread Lamp	<1 million		Maintain exemption.
Marine Lamp	<1 million		Maintain exemption.
Marine Signal Service Lamp	<1 million		Maintain exemption.
Mine Service Lamp	<1 million		Maintain exemption.
Plant Light Lamp	<1 million		Maintain exemption.
Reflector Lamp	Approximately 300 million	Lamp switching risk	Discontinue exemption.
Rough Service Lamp*	10,914,000		Discontinue exemption.
Shatter-Resistant Lamp	689,000	Lamp switching risk	Discontinue exemption.
Sign Service Lamp	Approximately 1 million		Maintain exemption.
Silver Bowl Lamp	Approximately 1 million		Maintain exemption.
Showcase Lamp	<1 million		Maintain exemption.
3-way Incandescent Lamp	32,665,000	Lamp switching risk	Discontinue exemption.
Traffic Signal Lamp	<1 million		Maintain exemption.
Vibration Service Lamp	7,071,000		Discontinue exemption.
G-shape Lamp with diameter of 5 inches or more.	Approximately 8 million	Lamp switching risk	Discontinue exemption.
T-shape lamp of 40 W or less or length of 10 inches or more.	Approximately 7 million	Lamp switching risk	Discontinue exemption.
B, BA, CA, F, G16–1/2, G25, G30, S, M–14 lamp of 40 W or less.	Approximately 42 million	Lamp switching risk	Discontinue exemption.

* NEMA submitted revised data for rough service lamps following the publication of the notice of data availability for five lamp types. See 81 FR 20261 (April 7, 2016). The revised data showed sales of 10,914,000 rough service lamps in 2015, which results in a requirement for DOE to initiate an accelerated rulemaking to establish an energy conservation standard for rough service lamps. See ex parte memorandum published in the docket at: *https://www.regulations.gov/document?D=EERE-2011-BT-NOA-0013-0019*.

As shown in Table II.1, based on the compiled sales data and a consideration of additional, applicable factors, DOE has tentatively determined to discontinue eight GSIL exemptions. DOE is proposing to maintain 14 of the GSIL exemptions due to low sales and low potential for use in GSL applications. DOE discusses each of the exemptions in the sections that follow.

a. Exemptions Discontinued

As stated, DOE is proposing to discontinue eight exemptions from the definition of GSIL. DOE assessed data available for medium screw base

[5] See II.A.1 for revised data submitted by NEMA on rough service lamps.

reflector lamps that are incandescent and preliminarily concluded that these lamps have high annual sales. Specifically, DOE estimated that the sales of medium base reflector lamps that are incandescent are approximately 300 million units per year (about 270 million incandescent reflector lamps [IRLs] and about 30 million non-IRL reflector lamps). In addition, DOE believes medium screw base reflector lamps are capable of providing overall illumination and could be used as a replacement for a GSIL. Therefore, there is also high potential for ''lamp switching'' and subsequently creating a loophole. For these reasons, DOE is proposing to discontinue the exemption for reflector lamps in this document. Although IRLs are explicitly exempt from the definition of GSL, 42 U.S.C. 6295(i)(6)(A)(i)(II) directs DOE to consider whether to discontinue the exemptions for certain incandescent lamps. DOE interprets this direction as referring to all exempt incandescent lamps in 42 U.S.C. 6291(BB)(ii); that is, incandescent reflector lamps and the 22 types exempt from GSIL. Furthermore, DOE notes that discontinuing the exemption for reflector lamps from GSIL expressly includes incandescent reflector lamps as GSILs and therefore as GSLs.

While DOE is discontinuing the exemption for reflector lamps generally, R20 short lamps will continue to not be subject to standards. R20 short lamps are defined as R20 incandescent reflector lamps that have a rated wattage of 100 watts; have a maximum overall length of 3 and 5⁄8, or 3.625, inches; and are designed, labeled, and marketed specifically for pool and spa applications. In a final rule published on November 14, 2013, DOE determined that standards for these lamps would not result in significant energy savings because such lamps are designed for special applications or have special characteristics not available in reasonably substitutable lamp types. 78 FR 68331, 68340. Pursuant to 42 U.S.C. 6291(30)(E), these lamps are specifically not incandescent lamps and therefore do not become GSILs when the reflector lamp exemption is discontinued.

DOE also collected data for medium screw base incandescent lamps of the following specific shapes: B, BA, CA, F, G16–1/2, G25, G30, S, M–14 lamps (as defined in ANSI C78.20 and ANSI C79.1–2002) of 40 W or less; G-shape lamps (as defined in ANSI C78.20 and ANSI C79.1–2002) with a diameter of 5 inches or more; T-shape lamps (as defined in ANSI C78.20 and ANSI C79.1–2002) that use not more than 40 W or has a length of more than 10 inches. For B, BA, CA, F, G16–1/2, G25, G30, S, and M–14 lamps of 40 W or less, DOE estimated the annual sales as approximately 42 million. For G-shape lamps with a diameter of 5 inches or more, DOE estimated the annual sales as approximately 8 million units. In addition to the sizeable sales of larger globe shape lamps, DOE believes it is likely that larger globe shape lamps may be used as substitutes for the G16.5, G25, and G30 lamps if the exemption is not also discontinued. Regarding T-shape lamps that use not more than 40 W or have a length of more than 10 inches, DOE estimated the annual sales of these lamps as roughly 7 million units. Further, the lamps of the specific shapes discussed in this paragraph are frequently used in general lighting applications and thus DOE believes there is a significant risk for lamp switching. Therefore, due to high sales and high potential for lamp switching, DOE is proposing to discontinue the GSIL exemption for these specific shapes.

Pursuant to 42 U.S.C. 6295(l)(4), DOE is required to collect unit sales data for rough service, shatter-resistant, 3-way incandescent lamps, and vibration service lamps. Section 321(a)(3)(B) of EISA 2007 in part amends paragraph 325(l)(4) of EPCA by adding paragraphs (D) through (H), which direct DOE to take regulatory action if the actual annual unit sales of any of these lamp types are more than 200 percent of the predicted shipments (*i.e.,* more than double the benchmark unit sales estimate). (42 U.S.C. 6295(l)(4)(D)–(H)) DOE published a notice of data availability (NODA) in April 2016, which indicated that the shipments of vibration service lamps were over 7 million units in 2015, which equates to 272.5 percent of the benchmark estimate. 81 FR 20261, 20263 (April 7, 2016). Therefore, vibration service lamps exceeded the statutory threshold for the first time, thus triggering an accelerated rulemaking. Furthermore, NEMA submitted revised data for rough service lamps following the publication of the April 2016 NODA. See 81 FR 20261 (April 7, 2016). The revised data showed sales of 10,914,000 rough service lamps in 2015, which results in a requirement for DOE to initiate an accelerated rulemaking for rough service lamps.[6] See ex parte memorandum published in the docket at: *https://www.regulations.gov/document?D=EERE-2011-BT-NOA-0013-0019*. If the Secretary does not complete this accelerated rulemaking in the allotted time, the statute provides a ''backstop requirement'' that becomes the regulatory standard for rough service lamps. This backstop requirement would require rough service lamps to: (1) Have a shatter-proof coating or equivalent technology that complies with NSF/ANSI 51 and is designed to contain the glass if the glass envelope of the lamp is broken and to provide effective containment over the life of the lamp, (2) have a maximum 40-watt limitation, and (3) be sold at retail only in a package containing one lamp. Although the sales of shatter-resistant and 3-way incandescent lamps have not yet exceeded their estimated benchmarks, DOE expects these sales will likely increase since these lamps could be used as replacements for other regulated lamp types. In addition, the sales of these lamps are not negligible. Specifically, the NEMA-submitted data for 2015 indicated that almost 38 million 3-way incandescent lamps (67.2 percent of the benchmark estimate) and nearly 700,000 shatter-resistant lamps (41.1 percent of the benchmark estimate) were sold in the previous year. 81 FR at 20263–64 (April 7, 2016). Based on the high sales volume and probability of consumers switching to these lamp types, DOE is proposing to discontinue the exemptions of rough service, shatter-resistant, 3-way incandescent, and vibration service lamps from GSILs in this document.

As stated, DOE is required to prescribe standards for rough service incandescent lamps, vibration service incandescent lamps, 3-way incandescent lamps, 2,601–3,300 lumen general service incandescent lamps,[7] and shatter resistant incandescent lamps (hereafter ''five-exempted incandescent lamps'') if their respective lamp sales exceed a certain threshold. Further, if DOE fails to set a standard, the lamp becomes subject to a specific wattage limit. 42 U.S.C. 6295(l)(4). NEMA asserted that this differential treatment of the five-exempted incandescent lamps from the other 22 exempted

[6] Section 321(a)(3)(B) of EISA 2007 in part amends paragraph 325(l)(4) of EPCA by adding paragraphs (D) through (H), which direct DOE to take regulatory action if the actual annual unit sales of any of the five lamp types exceed the predicted shipments by at least 100 percent (*i.e.,* more than double the benchmark unit sales estimate). (42 U.S.C. 6295(l)(4)(D)–(H)) As the sales for rough service lamps are more than double the benchmark sales estimate for the 2015 calendar year, DOE must conduct an accelerated energy conservation standards rulemaking for rough service lamps to be completed no later than the end of the 2016 calendar year.

[7] 2,601–3,300 lumen lamps are not included in the 22 exemptions from GSIL. However, the definition of GSIL prescribes a lumen range of 310 to 2,600 lumens thereby excluding these lamps. See section II.A.4 for a discussion of lumen output range.

incandescent lamp types, and that their sales data threshold is not based on growth in market share, shows that Congress did not intend to treat these as GSLs when they exceed the specific sales limit. (NEMA, No. 66 at pp. 21–22) OSI and GE observed that DOE is already taking steps to evaluate these five kinds of lamps as required by legislation. (OSI, No. 73 at p. 6; GE, No. 70 at pp. 8–9)

In contrast, NRDC expressed concern that 3-way incandescent lamps, shatter-resistant incandescent lamps, and vibration service incandescent lamps may become loopholes if DOE does not establish standards for them. (NRDC, Public Meeting Transcript, No. 54 at pp. 16–17) EEAs commented that vibration service incandescent lamps, rough service incandescent lamps, shatter-resistant incandescent lamps, and 3-way incandescent lamps are loophole risks because they are capable of serving in general lighting applications; are available in shapes, sizes, and lumen packages that allow them to replace common GSILs; and are relatively inexpensive. (EEAs, No. 64 at pp. 6–7) EEAs stated DOE should review whether they should be included within the definition of GSL as part of the current rulemaking in the same way it is required to review the other 18 exempted lamp types. ASAP also commented that these lamps should be included in the definition of a GSL. (ASAP, Public Meeting Transcript, No. 54 at p. 53–54)

EEAs indicated that the shipment tracking approach is only effective if DOE receives comprehensive shipment data for the U.S. market, which is dependent upon comprehensive reporting by NEMA's manufacturer members. The actual shipments and sales of the exempted lamp types could be significantly higher than reported if non-NEMA members serve the market. (EEAs, No. 64 at p. 7) Further, EEAs noted that the wattage limit requirements for vibration service, rough service, and shatter-resistant lamps that would be triggered if DOE did not establish standards as required are less stringent than the GSL backstop and may be insufficient to stop these types of lamps from becoming loopholes. EEAs also stated that the backstop for 3-way incandescent lamps should apply to each filament in the lamp. (EEAs, No. 64 at pp. 6–7)

NEMA noted that sales of shatter-resistant incandescent lamps, 3-way incandescent lamps, and incandescent lamps from 2,601–3,300 lumens have declined substantially since the baseline period 1990–2006. NEMA commented that these three specialty incandescent lamps are costly to make and consequently have higher retail prices than incandescent, fluorescent, or LED lamps used in a majority of lighting applications. Based on these factors, NEMA asserted DOE should maintain these exemptions. (NEMA, No. 66 at p. 46)

EEAs noted that shipments of rough service lamps are significantly higher than DOE's model and that they expect to see further increases in the shipments of these lamps. (EEAs, No. 64 at pp. 6–7) NEMA acknowledged that the sales of rough service incandescent lamps have declined but not at a rate as fast as the modeled decline. Thus, NEMA suggested that DOE adopt the following standard for rough service incandescent lamps: a maximum wattage of 40 watts and sold at retail only in a package containing one lamp. (NEMA, No. 66 at p. 47) DOE notes that after providing these comments, NEMA submitted data indicating that the sales of rough service lamps had increased such that they were more than 200 percent of the predicted shipments in 2015 (*i.e.,* more than double the benchmark unit sales estimate). See ex parte memorandum published in the docket at: *https://www.regulations.gov/document?D=EERE-2011-BT-NOA-0013-0019.*

EEAs, GE, CEC, and NEMA noted that the shipments of vibration service lamps have exceeded the projected sales limit and now require regulation. (EEAs, No. 64 at pp. 6–7; GE, No. 70 at p. 12; CEC, No. 69 at p. 22; NEMA, No. 66 at p. 47) NEMA suggested DOE incorporate the accelerated rulemaking for vibration service incandescent lamps into this rulemaking and adopt the following standard: A maximum wattage of 40 watts and sold at retail only in a package containing one lamp. (NEMA, No. 66 at p. 47) GE concurred that DOE should address vibration service incandescent lamps in this rulemaking. (GE, No. 70 at p. 12) However, CEC recommended an accelerated rulemaking for vibration service lamps and urged DOE to adopt a technology neutral standard that aligns with standards adopted in this rulemaking. (CEC, No. 69 at p. 22)

As stated previously, the sales threshold has been triggered for vibration service lamps. Subsequent data submitted by NEMA indicates that the sales threshold has also been triggered for rough service lamps. Therefore, DOE agrees with the suggestion from several stakeholders to include vibration service and rough service incandescent lamps as GSLs and proposes to discontinue the exemptions from GSIL for vibration service and rough service lamps in this NOPDDA. In addition, as discussed previously, DOE is proposing to discontinue the exemptions for shatter-resistant and 3-way lamps from the definition of GSIL in this NOPDDA due to lamp sales and the likelihood of lamp switching and potential loopholes if these exemptions were to remain.

DOE requests comment on the eight GSIL exemptions that are proposed to be discontinued in this rule. In particular, DOE requests comment on the estimated annual unit sales, potential for lamp switching, and any other factors that DOE should consider.

b. Exemptions Maintained

As stated previously, DOE is proposing to maintain 14 exemptions from the definition of GSIL. DOE found that medium screw base incandescent lamps that are appliance; black light; bug; colored; infrared; left-hand thread; marine; marine signal service; mine service; plant light; sign service; silver bowl; showcase; and traffic signal lamps had low sales data thus indicating that these are low volume products. DOE estimates that 12 of the 14 exemptions have annual unit sales of 1 million units or less. The remaining two exemptions, appliance lamps and colored lamps, are estimated to have less than 3 million annual unit sales and less than 2 million annual unit sales, respectively. DOE has also tentatively concluded that several of these exempted lamp types are unable to serve in general lighting applications and cannot provide overall illumination. Specifically, black light; bug; colored; infrared; and plant light lamps produce radiant power in specific wavelengths of the electromagnetic spectrum that would prevent these lamps from serving in general lighting applications. Further, DOE believes that proposing definitions for these exempted lamp types will help to prevent them from becoming loopholes. (See section II.B for a discussion of the definitions proposed for exemptions.)

DOE requests comment on the 14 GSIL exemptions proposed to be maintained in this proposed rule. In particular, DOE requests comment on the estimated annual unit sales, potential for lamp switching, and any other factors that DOE should consider. DOE also requests any additional sales data from stakeholders that could be considered when determining whether to maintain or discontinue the GSIL exemptions.

c. Proposed Definition for GSIL

Based on these preliminary determinations, DOE is proposing to

include in the definition for GSIL the following:

General service incandescent lamp means a standard incandescent or halogen type lamp that is intended for general service applications; has a medium screw base; has a lumen range of not less than 310 lumens and not more than 2,600 lumens or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens; and is capable of being operated at a voltage range at least partially within 110 and 130 volts; however this definition does not apply to the following incandescent lamps—

(1) An appliance lamp;
(2) A black light lamp;
(3) A bug lamp;
(4) A colored lamp;
(5) An infrared lamp;
(6) A left-hand thread lamp;
(7) A marine lamp;
(8) A marine signal service lamp;
(9) A mine service lamp;
(10) A plant light lamp;
(11) An R20 short lamp;
(12) A sign service lamp;
(13) A silver bowl lamp;
(14) A showcase lamp; and
(15) A traffic signal lamp.

As noted previously, GSILs are included in the definition of GSL. (42 U.S.C. 6291(30)(BB)(i)(I)) Thus, any lamp that meets the proposed definition of a GSIL would consequently also be a GSL. DOE requests comment on the proposed definition for GSIL.

2. CFLs

CFLs are also included in the definition of GSL; however, the term ''compact fluorescent lamp'' was not previously defined. DOE determined the term ''compact fluorescent lamp'' applied to both integrated (*e.g.,* medium base CFLs) and non-integrated CFLs (*e.g.,* pin base CFLs) in the preliminary analysis of the general service fluorescent lamp (GSFL) and incandescent reflector lamp (IRL) energy conservation standards rulemaking.[8] Because the term ''compact fluorescent lamps'' was not previously defined, DOE adopted a definition for CFL in the August 2016 CFL test procedure final rule. 81 FR 59386, 59403 (August 29, 2016). DOE incorporated language from the industry standards published by the Illuminating Engineering Society of North America (IES) RP–16–10 and IES LM–66–14 to define CFL without inappropriately excluding or including lamps. The adopted definition for CFL is as follows:

Compact fluorescent lamp (CFL) means an integrated or non-integrated single-base, low pressure mercury, electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light; the term does not include circline or U-shaped lamps.

In response to the March 2016 GSL ECS NOPR, NEMA and OSI stated that non-integrated CFLs comprise a small portion of the GSL commercial market with declining sales. (NEMA, No. 66 at p. 5; OSI, No. 73 at p. 13) As such, NEMA recommended that non-integrated CFLs only be subject to the 45 lm/W backstop requirement. (NEMA, No. 66 at p. 5) As discussed previously, DOE determined that the term compact fluorescent includes both integrated and non-integrated CFLs, and therefore non-integrated CFLs meet the definition of GSL. Further, DOE found that the market share of non-integrated CFLs is not negligible given the vast number of product offerings and common use in commercial applications.

3. General Service LED Lamps and OLED Lamps

General service LED lamps are included in the definition of GSL under 42 U.S.C. 6291(30)(BB). DOE does not currently have a definition for ''general service LED lamp,'' however ''light-emitting diode or LED'' is defined at 10 CFR 430.2 as a p-n junction solid-state device of which the radiated output, either in the infrared region, the visible region, or the ultraviolet region, is a function of the physical construction, material used, and exciting current of the device. In addition, the July 2016 LED TP final rule adopted a definition for the term ''integrated LED lamp'' in order to define the scope of the test procedure. 81 FR 43404, 43426 (July 1, 2016). The term ''integrated LED lamp'' was defined using the industry standard ANSI/IES RP–16–2010 and was adopted as follows:

Integrated light-emitting diode lamp means an integrated LED lamp as defined in ANSI/IES RP–16 (incorporated by reference; see § 430.3).

However, because LED lamps can be integrated or non-integrated, DOE proposed a definition for the term ''general service LED lamp'' to include both integrated and non-integrated lamps in the March 2016 GSL ECS NOPR. DOE proposed the following definition for general service LED lamps:

General service light-emitting diode (LED) lamp means an integrated or non-integrated LED lamp designed for use in general lighting applications (as defined in 430.2) and that uses light-emitting diodes as the primary source of light.

Similarly, general service OLED lamps are also included in the definition of GSL. DOE does not currently have a definition for ''OLED lamp,'' however, ''OLED'' is defined at 10 CFR 430.2 as a thin-film light-emitting device that typically consists of a series of organic layers between two electrical contacts (electrodes). DOE proposed the following definition for OLED lamp in the March 2016 GSL ECS NOPR:

Organic light-emitting diode or OLED lamp means an integrated or non-integrated lamp designed for use in general lighting applications (as defined in 430.2) and that uses OLEDs as the primary source of light.

NEMA and OSI suggested modifications to the proposed definitions of ''general service light-emitting diode (LED) lamp'' and ''organic light-emitting diode or OLED lamp''—specifically to change the phrase ''for use in general lighting applications'' to either of the following phrases: ''for use in a majority of lighting applications'' or ''for use in general service applications.'' If DOE preferred the latter phrase, they recommended a definition for ''general service applications'' that specified majority of lighting installations and excluded minority of lighting applications. (NEMA, No. 66 at p. 73; OSI, No. 73 at p. 5)

DOE is proposing to maintain the use of the phrase ''general lighting applications'' in the definitions where it was previously proposed, including those for ''general service light-emitting diode (LED) lamp'' and ''organic light-emitting diode or OLED lamp.'' (See section II.A.4 for more information.) For consistency, DOE is proposing here to adopt the term ''general service organic lighting-emitting diode or OLED lamp'' rather than ''organic lighting-emitting diode or OLED lamp'' as originally proposed in the March 2016 GSL ECS NOPR.

NEMA also recommended DOE specify that general service LED lamps include lamps marketed as vibration service, vibration resistant, or rough service lamps. (NEMA, No. 66 at p. 105) DOE preliminarily determines that this inclusion is unnecessary and, furthermore, would be confusing unless every sub-lamp type within general service LED lamps were also specified.

Therefore, DOE proposes the following definitions for ''general service light-emitting diode (LED)

[8] The preliminary analysis technical support document for the GSFL and IRL Standards Rulemaking is available at *www.regulations.gov/#!documentDetail;D=EERE-2011-BT-STD-0006-0022.*

lamp'' and ''general service organic light-emitting diode (OLED) lamp'':

General service light-emitting diode (LED) lamp means an integrated or non-integrated LED lamp designed for use in general lighting applications and that uses light-emitting diodes as the primary source of light.

General service organic light-emitting diode (OLED) lamp means an integrated or non-integrated OLED lamp designed for use in general lighting applications and that uses OLEDs as the primary source of light.

4. Other Lamps

As stated previously, the definition of GSL includes any other lamps that DOE determines are used to satisfy lighting applications traditionally served by GSILs. (42 U.S.C. 6291(30)(BB)(i)(IV)) In addition to GSILs, CFLs and general service LED and OLED lamps, DOE proposed in the March 2016 GSL ECS NOPR, a determination that any other lamps that are intended to serve in general lighting applications and have specific features would meet the statutory criterion of lamps used to satisfy lighting applications traditionally served by GSILs. To implement this determination, DOE proposed to define general service lamps as lamps intended to serve in general lighting applications and that have the following basic characteristics: (1) An ANSI base (with the exclusion of light fixtures); (2) a lumen output of 310 lumens or greater; (3) an ability to operate at any voltage; (4) are not or could not be the subject of other rulemakings; and (5) no designation or label for use in certain non-general applications. 81 FR 14628. ''General lighting application'' is currently defined at 10 CFR 430.2 as lighting that provides an interior or exterior area with overall illumination. The key aspects of the proposed definition of GSL and specific comments received regarding these features are discussed in the following sections.

a. General Lighting Applications

As stated previously, the term GSL includes any other lamps that DOE determines are used to satisfy lighting applications traditionally served by GSILs (''other lamps'' authority). (42 U.S.C. 6291(30)(BB)(i)(IV)) In response to the March 2016 GSL ECS NOPR, NEMA argued that DOE exceeded its statutory authority by proposing to define GSL to include lamps intended to serve in general lighting applications. (NEMA, No. 66 at p. 2) NEMA stated that the EISA 2007 amendment to EPCA did not include the phrases ''general lighting applications'' or ''provides . . . overall illumination'' in the definitions of ''general service incandescent lamp'' or ''general service lamp.'' Relying on the language of the GSIL definition established in the Energy Policy Act of 1992 (Pub. L. 102–486; October 24, 1992), NEMA stated that the definition of GSL should be limited to lamps that are used to satisfy the majority of lighting applications. (NEMA No. 66, pp. 24–25)

NEMA and OSI noted that the phrases ''general lighting application,'' and ''overall illumination'' were introduced to EPCA in EISA 2007 in the context of ''metal halide lamp fixtures'' and that DOE was improperly incorporating it into the definition of GSL. (NEMA, No. 66 at p. 8, OSI No. 73 at p. 5) NEMA further commented that the statutory list of lamps excluded from the definitions of both incandescent and fluorescent ''general service'' lamps in EPAct 1992 are specialty lamps that did not satisfy a majority of lighting applications; accordingly, they were and are not ''general service'' lamps. (NEMA, No. 66 at pp. 8, 25) NEMA added that several incandescent and fluorescent lamps on the EPAct 1992 list of excluded lamps are capable of providing ''an interior or exterior area with overall illumination,'' including ''shatter resistant,'' ''street lighting service,'' ''airway'' and ''airport'' service incandescent lamps, further evidencing that Congress never intended for ''overall illumination'' to be a consideration in the definition of a GSL. (NEMA, No. 66 at p. 8) By including lamps that provide ''overall illumination'' in the definition of GSL, NEMA argued, DOE would cover speciality lamps in the definition of GSL contrary to the intent of Congress. (NEMA, No. 66 at p. 8) NEMA asserted that if DOE were to consider establishing standards for CFL and LED lamps of the types exempted from the GSIL definition, DOE must determine that these speciality lamps are covered products according to 42 U.S.C. 6292(b), then initiate a rulemaking procedure under 42 U.S.C. 6295(l). (NEMA, No. 66 at p. 16)

GE and OSI added that, in order to be considered a GSL, a lamp must be designed to satisfy the majority of applications traditionally serviced by GSILs, and based on DOE's 2010 U.S. Lighting Market Characterization report, 98 percent of GSILs are used in residential homes, and therefore, a lamp must have a residential application to satisfy this requirement. GE stated that a majority of residential lighting applications include GSIL, reflector, candelabra base or intermediate base decorative, general service MR reflector, integrated CFL, integrated LED, and linear fluorescent lamps. However, niche incandescent or niche halogen lighting product with low and declining sales volumes, unique shapes, specialty bases, or operating on non-residential voltages should not be considered as satisfying a majority of lighting applications traditionally served by GSILs. (GE, No. 70 at p. 9; OSI, No. 73 at p. 6)

NEMA and OSI stated DOE should conform to the clear intent of Congress indicated by its reference to GSLs as lamps that are used in a majority of lighting applications and exclusion of those that are used in a minority of lighting applications. NEMA and OSI recommended DOE create a new definition for the term ''general service applications'' to mean the majority of lighting installations and not including specialty lamps designed for special purposes or special applications that represent a minority of lighting applications. (NEMA, No. 66 at p. 73; OSI, No. 73 at p. 5)

As stated previously, EISA 2007 added the definition of GSL to EPCA and defined the term, in part, to include GSILs, CFLs, general service LED and OLED lamps, and any other lamp that DOE determines is used to satisfy lighting applications traditionally served by GSILs. The term GSIL was originally added to EPCA by EPAct 1992, and defined, in part, to include any incandescent lamp that ''can be used to satisfy the majority of lighting applications.'' (EPAct 1992, section 123; 106 Stat 2776, 2817) The definition of GSIL was subsequently amended by EISA 2007, which removed the reference to lamps that ''can be used to satisfy the majority of lighting applications,'' and instead specified that a GSIL is a lamp intended for general service applications. (EISA 2007, sec. 321; 121 Stat. 1492, 1574) EISA did not define ''general service application'' but did provide DOE discretion to determine which lamps satisfy lighting applications traditionally served by GSILs. (42 U.S.C. 6291(30)(BB)(i)(IV))

The definition of GSIL and the determination to be made under the definition of GSL are in the context of the capabilities of a lamp to serve a particular lighting application. DOE must look at the applications traditionally served by GSILs and then determine whether a lamp is used in those applications. EPCA directs DOE to consider how GSILs have traditionally been used—what applications GSILs served—not how a lamp under consideration for inclusion in the definition of GSL has traditionally been used. In looking at the application of a GSIL, DOE considered the lighting

characteristics of a GSIL, *i.e.,* DOE considered what lighting characteristics allow a GSIL to meet the needs of a general service application and what lighting characteristics would satisfy a lighting application traditionally served by a GSIL. DOE determined that any lamp that is capable of being used in an application traditionally served by a GSIL is likely to be used for that purpose. As GSILs have traditionally provided overall illumination, a lamp that would satisfy the same application as traditionally served by GSILs is one that would provide overall illumination.

The fact that some of the lamps listed under the exemptions provided in 42 U.S.C. 6391(30)(D)(ii) may provide overall illumination does not preclude the consideration of general illumination as an element to the underlying definition of GSL. DOE does not read the list of exemptions as necessitating a narrowed interpretation of the underlying definition. Instead, the exemptions list includes lamps that may be considered GSLs (*i.e.,* may provide overall illumination), but which Congress chose to exempt at the time from the GSIL definition. As explained in the March 2016 GSL ECS NOPR, DOE considers the term ''overall illumination'' to be similar in meaning to the term ''general lighting'' as defined in the industry standard ANSI/IES RP–16–10 (hereafter ''RP–16''). RP–16 states that ''general lighting'' means lighting designed to provide a substantially uniform level of illuminance throughout an area, exclusive of any provision for special local requirements. 81 FR 14542. This interpretation of ''overall illumination'' excludes from the GSL definition specialty lamps that could not provide overall illumination.

b. ANSI Bases

DOE's proposed definition of GSL in the March 2016 GSL ECS NOPR included the requirement for an ANSI base but excluded light fixtures. CEC supported DOE's proposal not to limit the GSL definition to medium screw base lamps. (CEC, No. 69 at p. 18) GE agreed that a GSL is not a light fixture or an LED downlight retrofit kit. (GE, No. 70 at p. 10) Similarly, Eaton, NEMA, Philips, and OSI agreed with excluding LED downlight retrofit kits from the definition of GSLs. (Eaton, Public Meeting Transcript, No. 54 at pp. 58–59; Philips, No. 71 at p. 4; OSI, No. 73 at p. 5; NEMA, No. 66 at p. 73) CA IOUs commented that the term, ''ANSI-based'' is not clearly defined, and it was not clear if it was based on a particular ANSI standard, such as ANSI C81.61, and how, for example, bases of linear LED lamps are classified. (CA IOUs, Public Meeting Transcript, No. 54 at pp. 51–52)

DOE considers an ANSI base to be a lamp base standardized by the American National Standards Institute. DOE clarifies that if a linear LED lamp utilizes a base defined and standardized by ANSI, the lamp would meet that requirement of the GSL definition. DOE continues to propose that a GSL must have an ANSI base, with the exclusion of light fixtures and LED downlight retrofit kits. To better clarify the term ANSI base, DOE proposes the following definition:

ANSI base means a base type specified in ANSI C81.61–2016 (incorporated by reference; see § 430.3) or IEC 60061–1:2005 (incorporated by reference; see § 430.3).

c. Lumen Range

In the March 2016 GSL ECS NOPR, DOE did not prescribe a maximum lumen output when defining GSL. GE stated that DOE should not define lamps with lumens higher than 2,600 as GSLs as these lamps are designed for commercial, industrial, or specialty applications, and are not used in the residential sector. GE stated that some lamps go up to 50,000 lumens, and consumers would never use them in a home due to the cost and unnecessarily high light output. GE added that such products also do not have direct CFL and LED substitutes. (GE, No. 70 at pp. 9–10; GE, Public Meeting Transcript, No. 54 at pp. 64–65) The Appliance Standards Awareness Project (ASAP), however, asserted that until a decade ago, the torchiere with a 500 W halogen lamp was one of the most popular consumer luminaires. (ASAP, Public Meeting Transcript, No. 54 at p. 65) GE stated that torchieres with 500 W quartz halogen lamps for residential use were briefly on the market but no longer are sold due to safety concerns. (GE, Public Meeting Transcript, No. 54 at pp. 64–65)

DOE continues to believe that lamps with lumen outputs greater than 2,600 can be used in overall illumination and therefore would meet the definition of GSL. However, DOE reviewed available product information and is now proposing a maximum lumen output in the definition of GSL. DOE notes that overall product offerings of general service lamps significantly decrease around 4,000 lumens. Using product offerings as a proxy for overall sales, DOE concludes that sales of lamps with lumen outputs greater than 4,000 lumens are also much lower than lamps with lumen outputs between 310 and 4,000 lumens. While sales are not necessarily an indication of use in general lighting applications, DOE has tentatively concluded that the limited and unique product offerings above 4,000 lumens indicate that these lamps may be used mainly in specialty applications rather than for purposes traditionally served by GSILs. EISA 2007 directs DOE to track sales of five exempt lamp types, including 2,601 to 3,300 lumen incandescent lamps. While DOE acknowledges that reported data show that sales of these incandescent lamps have been decreasing over the last several years, DOE notes that the majority of product offerings between 2,601 and 3,300 lumens are CFLs or LED lamps and thus are not captured in the sales data. For the reasons described in this paragraph, DOE is proposing that general service lamps must have lumen outputs greater than or equal to 310 lumens and less than or equal to 4,000 lumens. DOE will continue to monitor the market and may re-evaluate this lumen range in future rulemakings. DOE requests comment on the proposed GSL lumen range, and also on whether DOE should adopt different upper and lower bounds for the range or should have no upper or lower limit to the lumen capacity of GSLs.

d. Operating Voltage

In the March 2016 GSL ECS NOPR, DOE did not propose a voltage range when defining GSL. GE commented that any lamp designed to operate at a voltage outside of 12V or 120V should not be included in the definition of GSL. (GE, No. 70 at p. 10) DOE believes that lamps with operating voltage outside of 12 V or 120 V can be used in general lighting applications. Therefore, DOE is not proposing a specific voltage range for the GSL definition.

e. Exempted Lamps From GSL

By definition, GSL does not apply to any lighting application or bulb shape described in the exemptions under the ''general service incandescent lamp'' definition. (42 U.S.C. 6291(30)(BB))(ii)(I)) In the March 2016 GSL ECS NOPR, DOE initially applied the exemptions to the GSL definition identified under 42 U.S.C. 6291(30)(BB)(ii)(I) only to medium screw base incandescent lamps, as the referenced descriptions of the exempted lamps were from the GSIL definition. 81 FR at 14545 (March 17, 2016). Although DOE applied these exemptions only to medium screw base incandescent lamps, DOE evaluated whether the 22 exemptions should also apply to CFL and LED lamps. 81 FR at 14545 (March 17, 2016).

CA IOUs, NEEP, and ASAP cautioned DOE to prevent potential loopholes with lamps exempted from the GSL

definition. (CA IOUs, No. 65 at p. 18; NEEP, No. 67 at p. 3; ASAP, Public Meeting Transcript, No. 54 at p. 12) NEEP stated appliance lamps and traffic signal lamps could result in potential loopholes as they are offered in a similar form factor as other GSLs and could serve in general lighting applications. (NEEP, No. 67 at p. 3)

NEMA stated that exempted lamp type versions of CFLs or LED lamps should remain exempt if they are not on the market and may never be manufactured; are not likely to consume an average of more than 100 kWh per household per year; and/or are exclusively for commercial use. NEMA asserted that DOE could easily determine to maintain the exemption for a number of lamps that NEMA stated are commercial lamps, and lamps that NEMA stated could not produce an average annual household energy use in excess of 100 kWh per year, and therefore would not be covered products. (NEMA, No. 66 at p. 45) NEMA provided detailed information regarding its position on each of the exempted lamp types in Tables A, B, and C of their written comments. (NEMA, No. 66 at pp. 48–49, 75–81)

Moreover, NEMA disagreed with DOE's interpretation of the ''exclusions'' provision under the definition of GSL. NEMA argued that under the statutory definition of GSL, lamps that provide lighting applications, or are of the same bulb shape, as described in the list of GSIL exempted lamps, regardless of lamp technology, are ''excluded'' from the definition of GSL. (NEMA, No. 66 at pp. 82–83.) NEMA further argued that these specialty lamps do not become ''general service lamps'' until they cease becoming designed for and used in special applications that represent a minority of lighting applications. (*Id.*) NEMA asserted that if DOE were to consider establishing standards for CFL and LED lamps of the types exempted from the GSIL definition, DOE must determine that those lamps are covered products according to 42 U.S.C. 6292(b), then initiate a rulemaking procedure under 42 U.S.C. 6295(l). (NEMA, No. 66 at p. 16.)

Upon further consideration of the statutory language, DOE agrees with NEMA in that the language of the ''exclusions provision'' under 42 U.S.C. 6291(30)(BB)(ii)(I) is not limited to lamps that are medium screw base or lamps that use incandescent technology. The GSL definition excludes lamps that serve the lighting application or are of the same lamp shape described in the GSIL ''exclusions'' provision, and makes no express reference to lighting technology or base type. Consequently, DOE is changing its interpretation in the March 2016 GSL ECS NOPR; DOE considers the language of 42 U.S.C. 6291(30)(BB)(ii)(I) to exclude from GSLs any lamps—whether GSILs, CFLs, general service LED and OLED lamps and any ''other lamps'' DOE includes in the GSL definition—that serve the listed lighting application or are of the same lamp shape described in the GSIL ''exclusions'' provision. Nonetheless, although the language of 42 U.S.C. 6291(30)(BB)(ii)(I) is not specific to incandescent technology, some of the lamp applications and bulb shapes described under the exemptions to the GSIL definition may be specific to incandescent lamps.

In section II.A.1, DOE assessed each of the 22 lamp categories within the GSIL exemptions to determine whether the Secretary should discontinue or maintain these exemptions for purposes of the GSL definition. DOE has tentatively concluded in that section that 14 of the 22 GSIL exemptions for medium screw base incandescent lamps should be maintained, while eight of the GSIL exemptions should be discontinued and considered as GSLs. Consistent with that tentative determination, DOE is now assessing the remaining 14 lamp categories in the GSIL exemptions to determine whether the application or lamp shape described is specific to an incandescent technology in order to determine the applicability of each exemption to GSLs other than GSILs.

As discussed in section II.A.1, DOE maintained exemptions from the GSIL definition for the following lamp types: appliance; black light; bug; colored; infrared; left-hand thread; marine; marine signal service; mine service; plant light; sign service; silver bowl; showcase; and traffic signal lamps. DOE then considered whether each of these exemptions were specific to incandescent technology. If the exemption was determined to be specific to incandescent technology, then by its own terms it did not apply to other (*e.g.,* fluorescent and LED) technologies. However, if the exemption was not specific to incandescent technology, then CFLs, LED lamps, and incandescent lamps that are not medium screw base (*i.e.,* non-GSILs) that provide lighting for the same application or are of the same shape would be excluded from the definition of GSL in addition to the medium screw base incandescent lamps that are currently exempt. DOE has tentatively determined that appliance lamps; black light lamps; bug lamps; colored lamps; infrared lamps; left-hand thread lamps; marine lamps; marine signal service lamps; mine service lamps; plant light lamps; sign service lamps; silver bowl lamps; showcase lamps; and traffic signal lamps are not specific to incandescent technology. Therefore, the exemptions for all 14 lamp categories extend to all GSLs. DOE requests comment on its preliminary determination that the 14 exemption types are not specific to incandescent technology.

DOE received comments regarding the discontinued exemption for reflector lamps. NEMA and OSI asserted that DOE does not have the authority to impose a 45 lm/W standard on halogen MR-shaped lamps, as it would be technologically infeasible and eliminate the lamp, and there are no adequate CFL or LED lamp substitutes. (NEMA, 66 at p. 56; OSI, No. 73 at p. 13) NEMA noted that the most common halogen MR16 lamps are available in wattages of 20 W, 35 W, 50W and 70/75 W at 12 V or 120 V. Instead of subjecting these lamps to the backstop, NEMA recommended DOE adopt a maximum 50W standard for MR11, MR14, MR16 and MR20 incandescent/halogen lamps. (NEMA, No. 66 at pp. 69–70, 82–83) Similarly, CEC argued that allowing the backstop to take effect instead of analyzing efficacy levels for small-diameter directional lamps, including MR16 lamps, could lead to a backsliding of energy savings in California, where standards for these lamp types are set at 80 lm/W, effective for lamps manufactured on or after January 1, 2018. (CEC, No. 69 at p. 19) CEC stated that the backstop would decrease the standard to 45 lm/W, effective for lamps sold on or after January 1, 2020, resulting in both a loss of energy savings and a potential gap in lamp availability for manufacturers who decline to make a California line of lamps during the two-year gap. (CEC, No. 69 at p. 19) CA IOUs agreed with CEC and stated that DOE is missing significant additional energy savings by not setting a standard higher than 45 lm/W for MR16 lamps and other small diameter directional lamps (SDDLs). They noted that CEC will require small diameter directional lamps to meet an efficacy range of 70–80 lm/W depending on CRI by 2018 and there are already ENERGY STAR-certified MR16 LED lamps meeting 85–90 lm/W. (CA IOUs, No. 65 at pp. 13–14)

NEMA, OSI, and GE expressed the view that, based on DOE's authority to include other lamps as GSLs, DOE can only include the MR lamp (with a pin base or medium screw base) operated at between 115 and 130 V, or at 12 V on a 120 V transformer. They stated that this lamp type is commonly used in a

large number of residential lighting applications, is not a currently exempted incandescent lamp, is not currently included in the definition of reflector lamp, and is not covered by another rulemaking. (NEMA, No. 66 at pp. 74; OSI, No. 73 at pp. 6–7; GE, No. 70 at p. 9)

As discussed in section II.A.1, DOE has proposed to discontinue the exemption for reflector lamps from the definition of GSIL.[9] If DOE discontinues the exemption from the GSIL definition, then the exemption also does not apply to the GSL definition; DOE is not required to reapply the exemption to other GSLs. Therefore, reflector lamps are not exempt from the definition of GSL, and MR lamps of any base type, voltage, and technology are included in the scope of the GSL definition.

GE and NEMA also commented that there are specialty MR-shaped lamps that should not be included in the GSL definition. (GE, No. 70 at p. 9; NEMA, No. 66 at p. 24) GE specified that there are several MR-shaped lamps with smaller diameters than the typical MR16 lamp, and they are often designed at odd voltages for use in specialty equipment and applications. GE also added that there are not currently LED versions of these specialty MR-shaped lamps on the market. (GE, No. 70 at p. 9) NEMA noted that these lamp types typically have uncommon base types and, because of low market share, do not contribute significantly to energy consumption. (NEMA, No. 66 at p. 24)

DOE surveyed the market for MR-shaped lamps with smaller diameters than the common MR16 lamps. DOE confirmed that these lamps are typically marketed for use in non-general lighting applications such as projectors, scientific illumination equipment, theater lighting, studio lighting, stage lighting, film lighting, medical equipment lighting, and emergency lighting. In addition, DOE found that these lamps are significantly more expensive and have shorter lifetimes than MR-shaped lamps designed for general lighting applications. Further, DOE is unsure whether higher efficacy replacements are technologically feasible for these lamps due to their specific optical working distances and smaller form factors. Due to their use in specialty applications and lack of more efficacious replacements, DOE proposes that MR-lamps with diameter less than 2 inches that are designed and marketed for use in projectors, scientific illumination equipment, theater lighting, studio lighting, stage lighting, film lighting, medical equipment lighting, and emergency lighting would not be included in the GSL definition. DOE is proposing a definition for ''specialty MR-lamp'' to clarify which MR lamps meet the definition of GSL. (See section II.B.9 for more information.) DOE requests comment on its preliminary determination that specialty MR-lamps should not be included in the GSL definition and the proposed definition for the term ''specialty MR-lamp.''

As noted in section II.A.1, DOE determined in a final rule published on November 14, 2013 that standards for R20 short lamps would not result in significant energy savings because such lamps are designed for special applications or have special characteristics not available in reasonably substitutable lamp types. 78 FR 68331, 68340. Therefore, DOE maintained the exemption for these lamps from GSIL and is exempting R20 short lamps from the definition of GSL.

f. Lamps Subject to Other Rulemakings

In the March 2016 GSL ECS NOPR, DOE proposed that a GSL cannot be a lamp that is the subject of other rulemakings. 81 FR 14543. Philips, OSI, and GE agreed that lamps subject to other rulemakings (*e.g.,* GSFLs, IRLs, mercury vapor lamps) should not be included in the scope of GSLs. (Philips, No. 71 at p. 4; GE, No. 70 at p. 9 -10; OSI, No. 73 at p. 6)

Earthjustice disagreed with DOE's position specifically concerning IRLs, stating that the fact that these lamps are addressed in a separate rulemaking should not prevent DOE from evaluating whether to maintain their exemption from GSLs. Earthjustice stated that DOE has engaged in several rulemakings that satisfy several statutory requirements in a single action (*e.g.,* residential boilers, residential furnaces). Further Earthjustice stated that standards adopted in the GSL rule would likely set new, more stringent efficacy standards than the ones to which IRLs are currently subject, which would not pose a conflict or be inconsistent. Additionally, Earthjustice asserted that the Appropriations Rider does not restrict DOE from discontinuing the IRL exemption from the scope of GSLs. (Earthjustice, No. 61 at p. 5) EEAs concurred with Earthjustice's reasoning on this matter and requested DOE define all reflector lamps, including IRLs, as GSLs. (EEAs, No. 64 at pp. 7–8) EEAs and ASAP stated that IRLs are commonly used for general illumination and noted that MBCFLs and GSILs are also currently subject to their own standards. (EEAs, No. 64 at pp. 7–8; ASAP, Public Meeting Transcript, No. 54 at pp. 12–13)

DOE notes that although MBCFLs and GSILs are currently subject to their own standards, these lamp types are included in the statutory definition of GSL and therefore expressly included in the scope of this rulemaking. When evaluating whether to include other lamp types as GSLs, DOE proposed the criteria that a GSL cannot be a lamp evaluated in other rulemakings that are or were ongoing at the time of the GSL rulemaking to limit the possibility that one lamp type might be subject to two different standards. Due to differences in scope and other factors, separate rulemakings for the same lamp type may result in two different efficacy requirements.

In this NOPDDA, DOE has revised this criteria regarding other rulemakings. DOE continues to exempt GSFLs from the definition of GSL. Because the definition of GSFL and the supporting definition of fluorescent lamp are structured in a certain way, DOE is adding some exemptions in this rule to exclude lamps that are specifically and currently excluded from the GSFL and fluorescent lamp definitions from the definition of GSL. However, DOE is not exempting other lamps that were the subject of other ongoing rulemakings. As described in section II.A.1, DOE has discontinued the exemption for reflector lamps and therefore discontinued the exemption for IRLs. DOE is also not specifically exempting high intensity discharge (HID) lamps that otherwise meet the GSL criteria.

5. Summary and Proposed Regulatory Text Definition

As in the March 2016 GSL ECS NOPR, DOE is proposing to define general service lamp as a lamp intended to serve in general lighting applications and that has the following basic characteristics: (1) An ANSI base (with the exclusion of light fixtures and LED downlight retrofit kits); (2) a lumen output of greater than or equal to 310 lumens and less than or equal to 4,000 lumens; (3) an ability to operate at any voltage; and (4) no designation or label for use in non-general applications.

DOE is proposing a definition of ''general service lamp'' in 430.2 to capture the criteria and the exemptions discussed in previous sections. DOE proposes to define GSL as follows:

General service lamp means a lamp that has an ANSI base, operates at any voltage, has an initial lumen output of greater than or equal to 310 lumens (or 232 lumens for modified spectrum general service incandescent lamps) and

[9] DOE is maintaining the exemption from GSIL for R20 short lamps.

less than or equal to 4,000 lumens, is not a light fixture, is not an LED downlight retrofit kit, and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light-emitting diode lamps, but do not include general service fluorescent lamps; linear fluorescent lamps of lengths from one to eight feet; circline fluorescent lamps; fluorescent lamps specifically designed for cold temperature applications; impact-resistant fluorescent lamps; reflectorized or aperture fluorescent lamps; fluorescent lamps designed for use in reprographic equipment; fluorescent lamps primarily designed to produce radiation in the ultra-violet region of the spectrum; fluorescent lamps with a color rendering index of 87 or greater; R20 short lamps; specialty MR lamps; appliance lamps; black light lamps; bug lamps; colored lamps; infrared lamps; left-hand thread lamps, marine lamps, marine signal service lamps; mine service lamps; plant light lamps; sign service lamps; silver bowl lamps, showcase lamps, and traffic signal lamps.

DOE requests comment on its proposed definition of GSL.

B. Supporting Definitions

In the March 2016 GSL ECS NOPR, DOE proposed several definitions to support its proposed definition of ''general service lamp.'' Specifically, DOE proposed definitions for ''integrated lamp,'' ''non-integrated lamp,'' ''light fixture,'' ''pin base lamp,'' ''GU24 base,'' ''LED downlight retrofit kit,'' and several terms to better define the lamp types described in section II.A.4 that are exempt from the definition of general service lamp. EEAs expressed concern that certain proposed exempted lamp type definitions may allow exempted incandescent lamps to be converted for use in general lighting applications. (EEAs, No. 64 at p. 7) In this proposed rule, DOE re-evaluated its proposed definitions for exempted lamp types and determined that they provide sufficient detail to prevent possible loopholes. DOE also received several specific comments regarding the proposed definitions as discussed in the following sections.

1. LED Downlight Retrofit Kit

Eaton, NEMA, Philips, and OSI agreed with the proposed definition of the ''LED downlight retrofit kit.'' (Eaton, Public Meeting Transcript, No. 54 at pp. 58–59; Philips, No. 71 at p. 4; OSI, No. 73 at p. 5; NEMA, No. 66 at p. 73) DOE received no other comments on the proposed definition of ''LED downlight retrofit kit.'' DOE continues to propose a definition for ''LED downlight retrofit kit'' in this document. DOE has replaced the term ''intended'' with ''designed and marketed'' as the latter provides more clarity. The proposed definition reads as follows:

LED Downlight Retrofit Kit means a product designed and marketed to install into an existing downlight, replacing the existing light source and related electrical components, typically employing an ANSI standard lamp base, either integrated or connected to the downlight retrofit by wire leads, and is a retrofit kit classified or certified to UL 1598C–2014 (incorporated by reference; see § 430.3). LED downlight retrofit kit does not include integrated lamps or non-integrated lamps.

2. Reflector Lamp and Non-Reflector Lamp

NEMA agreed with the proposed definition of ''reflector lamp.'' (NEMA, No. 66 at p. 24) DOE received no other comments on the proposed definitions of ''reflector lamp'' or ''non-reflector'' lamp. As such, DOE continues to propose the following definitions for ''reflector lamp'' and ''non-reflector lamp'' in this document:

Reflector lamp means a lamp that has an R, PAR, BPAR, BR, ER, MR, or similar bulb shape as defined in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1 (incorporated by reference; see § 430.3) and is used to direct light.

Non-reflector lamp means a lamp that is not a reflector lamp.

3. Black Light Lamp, Colored Lamp, Plant Light Lamp, and Bug Lamp

Regarding the definitions of lamps that are colored (*i.e.,* ''black light lamp,'' ''bug lamp,'' ''colored lamp,'' and ''plant light lamp''), NEEP stated, with support from EEAs and ASAP, that DOE should require that the color-element must be inherent in the construction of the lamp, and cannot be a consumer removable film or cover. NEEP added there are colored lamps now at internet prices of $1. (NEEP, No. 67 at p. 4; NEEP, Public Meeting Transcript, No. 54 at pp. 59–60; ASAP, Public Meeting Transcript, No. 54 at p. 60; EEAs, No. 64 at p. 7) Philips, however, agreed with the proposed definitions for ''black light lamp,'' ''bug lamp,'' ''colored lamp,'' and ''plant light lamp.'' (Philips, No. 71 at p. 4)

DOE has preliminary determined that the technical criteria specified in these definitions would be sufficient to prevent possible loopholes. DOE notes that the stipulations in the definitions for ''black light lamp,'' ''bug lamp,'' and ''plant light lamp'' regarding the range of the electromagnetic spectrum within which each of these lamps' radiant power peaks must fall prevents such loopholes. A similar outcome occurs with the definition of ''colored lamp,'' as DOE proposed in this definition, two different criteria for CRI and correlated color temperature (CCT) that the lamp's light output must exhibit. Hence, DOE continues to propose these definitions as presented in the March 2016 GSL ECS NOPR and as follows:

Black light lamp means a lamp that is designed and marketed as a black light lamp and is an ultraviolet lamp with the highest radiant power peaks in the UV–A band (315 to 400 nm) of the electromagnetic spectrum.

Bug lamp means a lamp that is designed and marketed as a bug lamp, has radiant power peaks above 550 nm on the electromagnetic spectrum, and has a visible yellow coating.

Colored lamp means a colored fluorescent lamp, a colored incandescent lamp, or a lamp designed and marketed as a colored lamp and not designed and marketed for general lighting applications with either of the following characteristics (if multiple modes of operation are possible [such as variable CCT], either of the below characteristics must be maintained throughout all modes of operation):

(1) A CRI less than 40, as determined according to the method set forth in CIE Publication 13.3 (incorporated by reference; see § 430.3); or

(2) A correlated color temperature less than 2,500 K or greater than 7,000 K as determined according to the method set forth in IES LM–66 or IES LM–79 as appropriate (incorporated by reference; see § 430.3).

Plant light lamp means a lamp that is designed to promote plant growth by emitting its highest radiant power peaks in the regions of the electromagnetic spectrum that promote photosynthesis: blue (440 nm to 490 nm) and/or red (620 to 740 nm). Plant light lamps must be designed and marketed for plant growing applications.

4. Mine Service Lamp

Philips supported the proposed definition for ''mine service lamp.'' (Philips, No. 71 at p. 4) However, ASAP expressed concern that it was too broad. ASAP noted that the original reasoning for a separate definition for mine service lamp was due to concerns of CFLs being used in hazardous gas environments, a risk that is avoided with solid-state lighting technology, and asked if this remained the reasoning for this

definition. (ASAP, Public Meeting Transcript, No. 54 at p. 60) In this document, DOE is proposing to exempt ''mine service lamp'' from the GSL definition. To provide clarity regarding exempted lamp types, DOE proposes to define ''mine service lamp'' so that it is technology neutral and encompasses only lamps designed and marketed for mine service applications. Hence, the use of the lamp would be sufficiently clear, thus discouraging consumers from using mine service lamps in general lighting applications. DOE continues to propose the following definition for ''mine service lamp'' as proposed in the March 2016 GSL ECS NOPR:

Mine service lamp means a lamp that is designed and marketed for mine service applications.

5. Appliance Lamp

DOE received comments on its use of the statutory definition of ''appliance lamp,'' which is defined at 42 U.S.C. 6291(30)(T) as:

Appliance lamp means any lamp that—

(1) Is specifically designed to operate in a household appliance, has a maximum wattage of 40 watts, is sold at retail (including an oven lamp, refrigerator lamp, and vacuum cleaner lamp); and

(2) Is designated and marketed for the intended application, with

(i) The designation on the lamp packaging; and

(ii) Marketing materials that identify the lamp as being for appliance use.

NEEP recommended DOE revisit its definition of ''appliance lamp'' to prevent the exploitation of that lamp type as a loophole from standards. They requested DOE limit the definition to lamps that must operate at high temperatures in applications such as ovens and clothes dryers. (NEEP, No. 67 at pp. 3–4) Regarding a potential loophole with this lamp type, DOE is proposing a revised definition of ''designed and marketed'' to clarify that the term means that a lamp is exclusively designed to fulfill the indicated application and, when distributed in commerce, is designated and marketed solely for that application, with the designation on the packaging and all publicly available documents (*e.g.,* product literature, catalogs, and packaging labels). (See section II.B.10 for further details.) DOE has initially determined that the specialty application of appliance lamps would be sufficiently clear, thus discouraging consumers from using appliance lamps in general lighting applications.

6. Marine Lamp and Marine Signal Service Lamp

NEEP requested DOE define ''marine lamps'' to avoid confusion with ''marine signal service lamps.'' (NEEP, No. 67 at p. 5) DOE initially determined in the March 2016 GSL ECS NOPR that marine lamps provide overall illumination and can serve in general lighting applications, therefore, DOE did not propose an exemption for marine lamps from the GSL definition. However, in this rule, DOE has revised its position and proposed to maintain the exemption for marine lamps. (See sections II.A.1 and II.A.4 for more information.) Therefore, to provide clarity regarding the exempted lamp type, DOE proposes to define ''marine lamp'' as follows:

Marine lamp means a lamp that is designed and marketed for use on boats.

With regard to marine signal service lamps, DOE's proposed definition states the lamp must be ''designed and marketed for marine signal service applications,'' which should prevent marine lamps from being used as a replacement lamp. Philips commented in support of the proposed definitions for ''marine signal service lamp.'' (Philips, No. 71 at p. 4) DOE continues to propose defining ''marine signal service lamp'' as follows:

Marine signal service lamp means a lamp that is designed and marketed for marine signal service applications.

7. Vibration Service Lamp and Rough Service Lamp

NEMA suggested DOE revise the definition of ''vibration service lamp'' to remove the wattage limit and number of packages sold in retail to prevent a conflict with its proposed standard for vibration service lamps. (NEMA, No. 66 at pp. 5, 107) NEEP noted that ''vibration service lamp'' and ''rough service lamp'' are nearly interchangeable and DOE should reconsider their definitions to avoid confusion particularly, after shipment data for vibration service lamps triggers their own rulemaking. (NEEP, No. 67 at p. 5)

DOE is proposing to discontinue the exemptions for vibration service lamps and rough service lamps in this rule, thus revised definitions are not necessary as these would be considered GSLs.

8. Scope of Coverage

NEMA recommended DOE modify the definition of ''covered product'' to include the several additional lamp types that describe GSLs. (NEMA, No. 66 at pp. 5, 71) OSI urged DOE to explicitly state within the definition of covered product which covered products are affected by preemption. (OSI, No. 73 at p. 3)

As mentioned, DOE is proposing a definition that specifies the lamps that are GSLs, (see section II.A for details on the definition of ''general service lamp'') which should explicitly address which lamps are subject to the GSL regulations.

9. MR Lamp

NEMA recommended a definition for ''MR lamp,'' describing it as ''a curved focusing reflectorized bulb which may have a multifaceted inner surface that is generally dichroic coated and referred to as a multifaceted reflector lamp with a GU10, GU11, GU5.3, GUX5.3, GU8, GU4, or E26 base'' and providing information regarding common light sources and diameters used in the lamp type. (NEMA, No. 66 at pp. 5, 106) As in the March 2016 GSL ECS NOPR, in this rule, DOE does not find that a general definition for MR-shaped lamps is necessary to clarify the scope of this rulemaking. However, DOE is proposing a definition for ''specialty MR lamp.'' As specified in II.A.4, DOE is proposing to exempt certain MR-shaped lamps that have smaller diameters than MR16 lamps, operate at odd voltages, and are marketed for use in specialty applications. In doing so, DOE finds it necessary to establish a definition for ''specialty MR lamp'' to describe the lamps used in these specialty applications. The details regarding the bulb shape provided in NEMA's definition are very similar to those in the ANSI standard that DOE references in its definition of ''specialty MR lamp.'' Specifically, DOE proposes the following definition for ''specialty MR lamp:''

Specialty MR lamp means a lamp that has an MR bulb shape as defined in ANSI C79.1 (incorporated by reference; see § 430.3) with a diameter less than 2 inches; operates at any voltage; and that is designed and marketed for use in projectors, scientific illumination equipment, theatre lighting, studio lighting, stage lighting, film lighting, medical equipment lighting, or emergency lighting.

10. Other Definitions

DOE also received comments from Philips supporting the proposed definitions for ''infrared lamp,'' ''sign service lamp,'' ''silver bowl lamp,'' ''showcase lamp,'' and ''traffic signal lamp.'' (Philips, No. 71 at p. 4) DOE received no other comments on these definitions. DOE continues to propose

definitions for each of these lamps as in the March 2016 GSL ECS NOPR:

Infrared lamp means a lamp that is designed and marketed as an infrared lamp, has its highest radiant power peaks in the infrared region of the electromagnetic spectrum (770 nm and 1 mm), and which has a primary purpose of providing heat.

Sign service lamp means a vacuum type or gas-filled lamp that has sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits, is designed and marketed as a sign service lamp, and has a maximum rated wattage 15 watts.

Silver bowl lamp means a lamp that has a reflective coating applied directly to part of the bulb surface that reflects light toward the lamp base and that is designed and marketed as a silver bowl lamp.

Showcase lamp means a lamp that has a T-shape as specified in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1 (incorporated by reference; see § 430.3), is designed and marketed as a showcase lamp, and has a maximum rated wattage of 75 watts.

Traffic signal lamp means a lamp that is designed and marketed for traffic signal applications.

DOE received no comments on the proposed definitions or revisions to existing definitions for ''light fixture,'' ''integrated lamp,'' ''non-integrated lamp,'' ''pin base lamp,'' and ''GU24 base''; therefore DOE continues to propose definitions for these terms as in the March 2016 GSL ECS NOPR:

Light fixture means a complete lighting unit consisting of light source(s) and ballast(s) or drivers(s) (when applicable) together with the parts designed to distribute the light, to position and protect the light source, and to connect the light source(s) to the power supply.

Integrated lamp means a lamp that contains all components necessary for the starting and stable operation of the lamp, does not include any replaceable or interchangeable parts, and is connected directly to a branch circuit through an ANSI base and corresponding ANSI standard lamp-holder (socket).

Non-integrated lamp means a lamp that is not an integrated lamp.

Pin base lamp means a lamp that uses a base type designated as a single pin base or multiple pin base system in Table 1 of ANSI C81.61, Specifications for Electrics Bases (incorporated by reference; see § 430.3).

GU24 base means the GU24 base standardized in ANSI C81.61–2016 (incorporated by reference; see § 430.3).

DOE is proposing a new definition for the term ''left-hand thread lamp'' in this rule to better define the lamps that meet this definition and therefore are proposed to be exempt. The proposed definition is as follows:

Left-hand thread lamp means a lamp with direction of threads on the lamp base oriented in the left-hand direction.

Lastly, DOE is proposing slight modifications to the definition proposed for ''designed and marketed'' in the March 2016 GSL ECS NOPR to improve clarity. The proposed definition is as follows:

Designed and marketed means exclusively designed to fulfill the indicated application and, when distributed in commerce, is designated and marketed solely for that application, with the designation on the packaging and all publicly available documents (*e.g.,* product literature, catalogs, and packaging labels). This definition is applicable to terms related to the following covered lighting products: Fluorescent lamp ballasts; fluorescent lamps; general service fluorescent lamps; general service incandescent lamps; general service lamps; incandescent lamps; incandescent reflector lamps; medium base compact fluorescent lamps; and specialty application mercury vapor lamp ballasts.

III. Clarifications to Regulatory Text

DOE is proposing editorial modifications to regulatory text to align with the recently adopted test procedure for integrated LED lamps. Specifically, DOE is proposing changes to 10 CFR 429.56 regarding the certification and reporting requirements of integrated LED lamps. In the July 2016 LED test procedure (TP) final rule, DOE adopted the requirement that testing of integrated LED lamps be conducted by test laboratories accredited by an Accreditation Body that is a signatory member to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). 81 FR 43404, 43419 (July 1, 2016). To align with this requirement, DOE is proposing in this NOPDDA to modify the certification report language in 429.56(b)(2) to specify that the testing laboratory's ILAC accreditation body's identification number or other approved identification assigned by the ILAC accreditation body must be included in the certification report. In addition, DOE is proposing that manufacturers must also report color rendering index (CRI) in the certification report for integrated LED lamps. DOE requests comment on the proposed changes regarding the certification and reporting requirements of integrated LED lamps.

IV. Effective Date

For the proposed changes described in the various definitions in this document, DOE is proposing a January 1, 2020 effective date. DOE understands that the proposed definitions, especially those proposed expirations within the GSIL definition, will require that certain exempted lamps comply with the current Federal energy conservation standards for GSILs upon the effective date of this rulemaking. By aligning the proposed effective date with the 45 lm/W statutory standard beginning on January 1, 2020, DOE believes this will allow reasonable time for manufacturers to transition, while reducing the number of redesigns needed.

V. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

The Office of Management and Budget (OMB) has determined that this NOPDDA does not constitute a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, 58 FR 51735 (Oct. 4, 1993). This proposed rule neither implements nor seeks to enforce any standard. Rather, this proposed rule merely seeks to define what constitutes a GSIL and what constitutes a GSL. Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs (OIRA) in the OMB.

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*).

DOE reviewed the definitions for GSL and related terms proposed in this

NOPDDA under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003. DOE certifies that the proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The factual basis for this certification is set forth in the following paragraphs.

For manufacturers of GSLs, 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 See 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.* Manufacturing of GSLs is classified under NAICS 335110, ''Electric Lamp Bulb and Part Manufacturing.'' The SBA sets a threshold of 1,000 employees or less for an entity to be considered as a small business for this category.

To estimate the number of companies that could be small businesses that manufacture GSLs covered by this rulemaking, DOE conducted a market survey using publicly available information. DOE's research involved information provided by trade associations (*e.g.,* NEMA [10]) and information from DOE's Compliance Certification Management System (CCMS) Database,[11] EPA's ENERGY STAR Certified Light Bulbs Database,[12] LED Lighting Facts Database,[13] previous rulemakings, individual company Web sites, SBA's database, and market research tools (*e.g.,* Hoover's reports [14]). DOE used information from these sources to create a list of companies that potentially manufacture or sell GSLs and would be impacted by this rulemaking. DOE screened out companies that do not offer products covered by this rulemaking, do not meet the definition of a ''small business,'' or are completely foreign owned and operated. DOE determined that nine companies are small businesses that maintain domestic production facilities for general service lamps.

DOE notes that this proposed rule merely seeks to define what constitutes a GSIL and what constitutes a GSL. General service lamps are required to use DOE's test procedures to make representations and certify compliance with standards, if required. The test procedure rulemakings for compact fluorescent lamps, integrated LED lamps, and other general service lamps [15] addressed impacts on small businesses due to test procedure requirements. 81 FR 59386 (August 29, 2016); 81 FR 43404 (July 1, 2016). DOE understands that the proposed definitions, especially those proposed expirations within the GSIL definition, will require that certain exempted lamps comply with the current Federal test procedures and Federal energy conservation standards for GSILs upon the effective date of this rulemaking. Because the proposed effective date is aligned with the 45 lm/W statutory standard beginning on January 1, 2020, DOE believes reasonable time is provided for manufacturers to transition, while reducing the number of redesigns needed. For these reasons, DOE tentatively concludes and certifies that the new proposed definitions would not have a significant economic impact on a substantial number of small entities, and the preparation of an IRFA is not warranted.

C. Review Under the Paperwork Reduction Act

Manufacturers of GSLs 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 GSLs, 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. 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. DOE requested OMB approval of an extension of this information collection for three years, specifically including the collection of information proposed in the present rulemaking, and estimated that the annual number of burden hours under this extension is 30 hours per company. In response to DOE's request, OMB approved DOE's information collection requirements covered under OMB control number 1910–1400 through November 30, 2017. 80 FR 5099 (January 30, 2015).

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

In this proposed rule, DOE proposes definitions for and related to GSLs. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, this rule proposes a definition for general service lamp and related terms but does not affect the amount, quality or distribution of energy usage, and, therefore, will not result in any environmental impacts. Thus, this rulemaking is covered by Categorical Exclusion A5 under 10 CFR part 1021, subpart D. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (August 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

[10] National Electric Manufacturers Association | Member Products | Lighting Systems | Related Manufacturers, *http://www.nema.org/Products/Pages/Lighting-Systems.aspx* (last accessed October 6, 2016).

[11] DOE's Compliance Certification Database | Lamps—Bare or Covered (No Reflector) Medium Base Compact Fluorescent, *http://www.regulations.doe.gov/certification-data* (last accessed October 6, 2016).

[12] ENERGY STAR Qualified Lamps Product List, *http://downloads.energystar.gov/bi/qplist/Lamps_Qualified_Product_List.xls?dee3-e997* (last accessed October 6, 2016).

[13] LED Lighting Facts Database, *http://www.lightingfacts.com/products* (last accessed October 6, 2016).

[14] Hoovers | Company Information √ Industry Information √ Lists, *http://www.hoovers.com* (last accessed October 6, 2016).

[15] The pre-publication of the general service lamps test procedure final rule was issued on September 30, 2016 and is available at: *http://energy.gov/sites/prod/files/2016/09/f33/General%20Service%20Lamps%20TP%20Final%20Rule.pdf.*

such regulations. 65 FR 13735. DOE has examined this proposed rule and has tentatively determined that it 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. EPCA governs and prescribes federal preemption of state regulations as to energy conservation for the products that are the subject of this 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) Therefore, 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; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), 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 them. 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/sites/prod/files/gcprod/documents/umra_97.pdf.*

DOE examined this proposed rule according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of $100 million or more in any year, so these requirements do not apply.

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

Pursuant to Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 15, 1988), DOE has determined that this proposed rule 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 information quality 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 this NOPDDA 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.

This regulatory action to propose definitions for GSL and related terms is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

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.'' *Id.* at FR 2667.

The proposed definitions incorporate information contained in certain sections of the following commercial standards:

(1) ANSI C81.61–2016, ''American National Standard for Electrical Lamp Bases—Specifications for Bases (Caps) for Electric Lamps,'' 2016;

(2) IEC Standard 60061, ''Lamp caps and holders together with gauges for the control of interchangeability and safety, Amendment 35, Edition 3,'' 2005–01;

(3) UL 1598C–2014, ''Standard for Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits, First Edition,'' 2014;

DOE has evaluated these standards and is unable to conclude whether they fully comply with the requirements of section 32(b) of the FEAA (*i.e.,* that they were developed in a manner that fully provides for public participation, comment, and review.) DOE will consult with both the Attorney General and the Chairman of the FTC concerning the impact of these test procedures on competition, prior to adopting a final rule.

M. Description of Materials Incorporated by Reference

In this NOPDDA, DOE proposes to incorporate by reference the standard published by ANSI, titled ''Electric Lamp Bases—Specifications for Bases (Caps) for Electric Lamps,'' ANSI C81.61–2016. ANSI C81.61–2016 is an industry accepted standard that describes the specifications for bases (caps) used on electric lamps. This NOPDDA references ANSI C81.61–2016 for the definition of the term ''ANSI base.'' ANSI C81.61–2016 is readily available on *http://webstore.ansi.org/.*

DOE also incorporates by reference the standard published by IEC, titled ''Lamp caps and holders together with gauges for the control of interchangeability and safety—Part 1: Lamp caps,'' IEC 60061–1:2005. IEC 60061–1:2005 is an industry accepted standard that describes the specifications for lamp caps. This NOPDDA references IEC 60061–1:2005 for the definition of the term ''ANSI base.'' IEC 60061–1:2005 is readily available on *https://webstore.iec.ch/home.*

DOE also incorporates by reference the standard published by UL, titled ''Standard for Light-Emitting Diode Retrofit Luminaire Conversion Kits,'' First Edition, dated January 16, 2014, UL 1598C–2014. UL 1598C–2014 is an industry accepted standard that describes the requirements for LED retrofit luminaire conversion kits intended to replace existing incandescent, fluorescent, induction, and HID systems that comply with existing requirements for luminaires. This NOPDDA references UL 1598C–2014 for the definition of the term ''LED Downlight Retrofit Kit.'' UL 1598C–2014 is readily available on *http://ulstandards.ul.com/standards-catalog/.*

VI. 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 NOPDDA. If you plan to attend the public meeting, please notify Appliance and Equipment Standards Program Staff at (202) 586–6636 or *Appliance_Standards_Public_Meetings@ee.doe.gov.*

Please note that foreign nationals visiting DOE Headquarters are subject to advance security screening procedures which require advance notice prior to attendance at the public meeting. If a foreign national wishes to participate in the public meeting, please inform DOE of this fact as soon as possible by contacting Ms. Regina Washington at (202) 586–1214 or by email (*Regina.Washington@ee.doe.gov*) so that the necessary procedures can be completed.

DOE requires visitors to have laptops and other devices, such as tablets, checked upon entry into the Forrestal Building. Any person wishing to bring these devices into the building will be required to obtain a property pass. Visitors should avoid bringing these devices, or allow an extra 45 minutes to check in. Please report to the visitor's desk to have devices checked before proceeding through security.

Due to the REAL ID Act implemented by the Department of Homeland Security (DHS), there have been recent changes regarding identification (ID) requirements for individuals wishing to enter federal buildings from specific states and U.S. territories. As a result, driver's licenses from several states or territory will not be accepted for building entry, and instead, one of the alternate forms of ID listed below will be required. DHS has determined that regular driver's licenses (and ID cards) from the following jurisdictions are not acceptable for entry into DOE facilities: Alaska, American Samoa, Arizona, Louisiana, Maine, Massachusetts, Minnesota, New York, Oklahoma, and Washington. Acceptable alternate forms of Photo-ID include: U.S. Passport or Passport Card; an Enhanced Driver's License or Enhanced ID-Card issued by the States of Minnesota, New York, or Washington (Enhanced licenses issued by these states are clearly marked Enhanced or Enhanced Driver's License); a military ID or other federal-government-issued photo ID-card.

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: *https://www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=4.* 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 document. 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. There shall not be discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. anti-trust laws. After the public meeting, interested parties may submit further comments on the proceedings, as well as on any aspect of the NOPDDA, 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 NOPDDA. 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 NOPDDA. 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 and will be accessible on the DOE Web site. 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 NOPDDA before or after the public meeting, but no later than the date provided in the **DATES** section at the beginning of this notice. 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 *www.regulations.gov.* The *www.regulations.gov* Web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

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

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

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

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

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

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

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, 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 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) DOE requests comment on the eight GSIL exemptions that are proposed to be discontinued in this notice. In particular, DOE requests comment on the estimated annual unit sales, potential for lamp switching, and any other factors that should be considered.

(2) DOE requests comment on the 14 GSIL exemptions that are proposed to be maintained in this notice. In particular, DOE requests comment on the estimated annual unit sales, potential for lamp switching, and any other factors that should be considered.

(3) DOE requests any additional sales data from stakeholders that could be considered when determining whether to maintain or discontinue the GSIL exemptions.

(4) DOE requests comment on the proposed definition for GSIL.

(5) DOE requests comment on its preliminary determination that the following exemption types are not specific to incandescent technology: Appliance lamps; black light lamps; bug lamps; colored lamps; infrared lamps; left-hand thread lamps; marine lamps; marine signal service lamps; mine service lamps; plant light lamps; sign service lamps; silver bowl lamps; showcase lamps; and traffic signal lamps.

(6) DOE requests comment on the proposed GSL lumen range of greater than or equal to 310 lumens and less than or equal to 4,000 lumens.

(7) DOE requests comment on its preliminary determination that specialty MR-lamps warrant an exemption and the proposed definition for the term ''specialty MR-lamp.''

(8) DOE requests comment on its proposed definition of GSL.

(9) DOE requests comment on the various definitions proposed to better delineate the GSL definition.

(10) DOE requests comment on the proposed changes regarding the certification and reporting requirements of integrated LED lamps.

VII. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notice of proposed definition and data availability.

List of Subjects

10 CFR Part 429

Confidential business information, Energy conservation, Household appliances, Imports, Reporting and recordkeeping requirements.

10 CFR Part 430

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Incorporation by reference, Intergovernmental relations, Small businesses.

Issued in Washington, DC, on October 7, 2016.

Kathleen B. Hogan,

Deputy Assistant Secretary for Energy Efficiency, Energy Efficiency and Renewable Energy.

For the reasons set forth in the preamble, DOE proposes to amend parts 429 and 430 of chapter II, subchapter D, of title 10 of the Code of Federal Regulations, as set forth below:

PART 429—CERTIFICATION, COMPLIANCE, AND ENFORCEMENT FOR CONSUMER PRODUCTS AND COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 429 continues to read as follows:

Authority: 42 U.S.C. 6291–6317; 28 U.S.C. 2461 note.

■ 2. Section 429.56 is amended by revising paragraph (b)(2) to read as follows:

§ 429.56 Integrated light-emitting diode lamps.

* * * * *

(b) * * *

(2) *Values reported in certification reports are represented values.* Pursuant to § 429.12(b)(13), a certification report shall include the following public product-specific information: The testing laboratory's ILAC accreditation body's identification number or other approved identification assigned by the ILAC accreditation body, the date of manufacture, initial lumen output in lumens (lm), input power in watts (W), lamp efficacy in lumens per watt (lm/W), CCT in kelvin (K), CRI, power factor, lifetime in years (and whether value is estimated), and life (and whether value is estimated). For lamps with multiple modes of operation (such as variable CCT or CRI), the certification report must also list which mode was selected for testing and include detail such that another laboratory could operate the lamp in the same mode. Lifetime and life are estimated values until testing is complete. When reporting estimated values, the certification report must specifically describe the prediction method, which must be generally representative of the methods specified in appendix BB. Manufacturers are required to maintain records per § 429.71 of the development of all estimated values and any associated initial test data.

* * * * *

PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

■ 3. The authority citation for part 430 continues to read as follows:

Authority: 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

■ 4. Section 430.2 is amended by:

■ a. Adding in alphabetical order the definitions of ''ANSI base,'' ''Black light lamp,'' ''Bug lamp,'' ''Colored lamp,'' ''General service light-emitting diode (LED) lamp,'' ''General service organic lighting-emitting diode (OLED) lamp,'' ''GU24 base,'' ''Infrared lamp,'' ''Integrated lamp,'' ''LED Downlight Retrofit Kit,'' ''Left-hand thread lamp,'' ''Light fixture,'' ''Marine lamp,'' ''Marine signal service lamp,'' ''Mine service lamp,'' ''Non-integrated lamp,'' ''Non-reflector lamp,'' ''Pin base lamp,'' ''Plant light lamp,'' ''Reflector lamp,'' ''Showcase Lamp,'' ''Sign service lamp,'' ''Silver bowl lamp,'' ''Specialty MR lamp,'' and ''Traffic signal lamp;'' and

■ b. Revising the definitions of ''designed and marketed,'' ''general service incandescent lamp,'' and ''general service lamp.''

The additions and revisions read as follows:

§ 430.2 Definitions.

* * * * *

ANSI base means a base type specified in ANSI C81.61–2016 (incorporated by reference; see § 430.3) or IEC 60061–1:2005 (incorporated by reference; see § 430.3).

* * * * *

Black light lamp means a lamp that is designed and marketed as a black light lamp and is an ultraviolet lamp with the highest radiant power peaks in the UV–A band (315 to 400 nm) of the electromagnetic spectrum.

* * * * *

Bug lamp means a lamp that is designed and marketed as a bug lamp,

has radiant power peaks above 550 nm on the electromagnetic spectrum, and has a visible yellow coating.

* * * * *

Colored lamp means a colored fluorescent lamp, a colored incandescent lamp, or a lamp designed and marketed as a colored lamp and not designed and marketed for general lighting applications with either of the following characteristics (if multiple modes of operation are possible [such as variable CCT], either of the below characteristics must be maintained throughout all modes of operation):

(1) A CRI less than 40, as determined according to the method set forth in CIE Publication 13.3 (incorporated by reference; see § 430.3); or

(2) A correlated color temperature less than 2,500 K or greater than 7,000 K as determined according to the method set forth in IES LM–66 or IES LM–79 as appropriate (incorporated by reference; see § 430.3).

* * * * *

Designed and marketed means exclusively designed to fulfill the indicated application and, when distributed in commerce, is designated and marketed solely for that application, with the designation on the packaging and all publicly available documents (*e.g.,* product literature, catalogs, and packaging labels). This definition is applicable to terms related to the following covered lighting products: Fluorescent lamp ballasts; fluorescent lamps; general service fluorescent lamps; general service incandescent lamps; general service lamps; incandescent lamps; incandescent reflector lamps; medium base compact fluorescent lamps; and specialty application mercury vapor lamp ballasts.

* * * * *

General service incandescent lamp means a standard incandescent or halogen type lamp that is intended for general service applications; has a medium screw base; has a lumen range of not less than 310 lumens and not more than 2,600 lumens or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens; and is capable of being operated at a voltage range at least partially within 110 and 130 volts; however this definition does not apply to the following incandescent lamps—

(1) An appliance lamp;
(2) A black light lamp;
(3) A bug lamp;
(4) A colored lamp;
(5) An infrared lamp;
(6) A left-hand thread lamp;
(7) A marine lamp;
(8) A marine signal service lamp;
(9) A mine service lamp;
(10) A plant light lamp;
(11) An R20 short lamp;
(12) A sign service lamp;
(13) A silver bowl lamp;
(14) A showcase lamp; and
(15) A traffic signal lamp.

General service lamp means a lamp that has an ANSI base, operates at any voltage, has an initial lumen output of greater than or equal to 310 lumens (or 232 lumens for modified spectrum general service incandescent lamps) and less than or equal to 4,000 lumens, is not a light fixture, is not an LED downlight retrofit kit, and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light-emitting diode lamps, but do not include general service fluorescent lamps; linear fluorescent lamps of lengths from one to eight feet; circline fluorescent lamps; fluorescent lamps specifically designed for cold temperature applications; impact-resistant fluorescent lamps; reflectorized or aperture fluorescent lamps; fluorescent lamps designed for use in reprographic equipment; fluorescent lamps primarily designed to produce radiation in the ultra-violet region of the spectrum; fluorescent lamps with a color rendering index of 87 or greater; R20 short lamps; specialty MR lamps; appliance lamps; black light lamps; bug lamps; colored lamps; infrared lamps; left-hand thread lamps; marine lamps; marine signal service lamps; mine service lamps; plant light lamps; sign service lamps; silver bowl lamps, showcase lamps, and traffic signal lamps.

General service light-emitting diode (LED) lamp means an integrated or non-integrated LED lamp designed for use in general lighting applications (as defined in § 430.2) and that uses light-emitting diodes as the primary source of light.

General service organic light-emitting diode (OLED) lamp means an integrated or non-integrated OLED lamp designed for use in general lighting applications (as defined in § 430.2) and that uses OLEDs as the primary source of light.

* * * * *

GU24 base means the GU24 base standardized in ANSI C81.61–2016 (incorporated by reference; see § 430.3).

* * * * *

Infrared lamp means a lamp that is designed and marketed as an infrared lamp, has its highest radiant power peaks in the infrared region of the electromagnetic spectrum (770 nm to 1 mm), and which has a primary purpose of providing heat.

Integrated lamp means a lamp that contains all components necessary for the starting and stable operation of the lamp, does not include any replaceable or interchangeable parts, and is connected directly to a branch circuit through an ANSI base and corresponding ANSI standard lamp-holder (socket).

* * * * *

LED Downlight Retrofit Kit means a product designed and marketed to install into an existing downlight, replacing the existing light source and related electrical components, typically employing an ANSI standard lamp base, either integrated or connected to the downlight retrofit by wire leads, and is a retrofit kit classified or certified to UL 1598C–2014 (incorporated by reference; see § 430.3). LED downlight retrofit kit does not include integrated lamps or non-integrated lamps.

Left-hand thread lamp means a lamp with direction of threads on the lamp base oriented in the left-hand direction.

* * * * *

Light fixture means a complete lighting unit consisting of light source(s) and ballast(s) (when applicable) together with the parts designed to distribute the light, to position and protect the light source, and to connect the light source(s) to the power supply.

* * * * *

Marine lamp means a lamp that is designed and marketed for use on boats.

Marine signal service lamp means a lamp that is designed and marketed for marine signal service applications.

* * * * *

Mine service lamp means a lamp that is designed and marketed for mine service applications.

* * * * *

Non-integrated lamp means a lamp that is not an integrated lamp.

Non-reflector lamp means a lamp that is not a reflector lamp.

* * * * *

Pin base lamp means a base type designated as a single pin base or multiple pin base system in Table 1 of ANSI C81.61, Specifications for Electrics Bases (incorporated by reference; see § 430.3).

* * * * *

Plant light lamp means a lamp that is designed to promote plant growth by emitting its highest radiant power peaks in the regions of the electromagnetic spectrum that promote photosynthesis: Blue (440 nm to 490 nm) and/or red (620 to 740 nm). Plant light lamps must

be designed and marketed for plant growing applications.

* * * * *

Reflector lamp means a lamp that has an R, PAR, BPAR, BR, ER, MR, or similar bulb shape as defined in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1 (incorporated by reference; see § 430.3) and is used to direct light.

* * * * *

Showcase lamp means a lamp that has a T-shape as specified in ANSI C78.20 (incorporated by reference; see § 430.3) and ANSI C79.1 (incorporated by reference; see § 430.3), is designed and marketed as a showcase lamp, and has a maximum rated wattage of 75 watts.

* * * * *

Sign service lamp means a vacuum type or gas-filled lamp that has sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits, is designed and marketed as a sign service lamp, and has a maximum rated wattage 15 watts.

Silver bowl lamp means a lamp that has a reflective coating applied directly to part of the bulb surface that reflects light toward the lamp base and that is designed and marketed as a silver bowl lamp.

* * * * *

Specialty MR lamp means a lamp that has an MR bulb shape as defined in ANSI C79.1 (incorporated by reference; see § 430.3) with a diameter less than 2 inches; operates at any voltage; and that is designed and marketed for use in projectors, scientific illumination equipment, theatre lighting, studio lighting, stage lighting, film lighting, medical equipment lighting, or emergency lighting.

* * * * *

Traffic signal lamp means a lamp that is designed and marketed for traffic signal applications.

* * * * *

■ 5. Section 430.3 is amended by:

■ a. Redesignating paragraphs (e)(12) through (e)(20) as paragraphs (e)(13) through (e)(21), respectively;

■ b. Adding new paragraph (e)(12);

■ c. Redesignating paragraphs (p)(2) through (p)(7) as paragraphs (p)(3) through (p)(8) respectively;:

■ d. Adding new paragraph (p)(2);

■ e. Adding new paragraph (u)(4).

The additions read as follows:

§ 430.3 Materials incorporated by reference.

* * * * *

(e) * * *

(12) ANSI C81.61–2016, (''ANSI C81.61–2016''), American National Standard for Electrical Lamp Bases—Specifications for Bases (Caps) for Electric Lamps, approved April 20, 2016, IBR approved for § 430.2.

* * * * *

(p) * * *

(2) IEC Standard 60061, (''IEC 60061–1:2005''), Lamp caps and holders together with gauges for the control of interchangeability and safety, Amendment 35, Edition 3, 2005–01; IBR approved for § 430.2.

* * * * *

(u) * * *

(4) UL 1598C–2014 (''UL 1598C–2014''), Standard for Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits, First Edition, dated January 16, 2014, IBR approved for § 430.2.

* * * * *

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