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FEDERAL TRADE COMMISSION

16 CFR Part 305

[RIN 3084-AB03]

APPLIANCE LABELING RULE

AGENCY: Federal Trade Commission (“FTC” or “Commission”).

ACTION: Final rule; opportunity for comment.

SUMMARY: Section 321 of the Energy Independence and Security Act of 2007 requires the Commission to consider the effectiveness of current labeling requirements for lamps (commonly referred to as light bulbs) and alternative labeling approaches. After holding a public meeting, conducting consumer research, issuing proposed changes to existing labeling requirements, and reviewing public comments, the Commission announces final amendments to the lamp labeling requirements in the Appliance Labeling Rule (16 CFR Part 305). The Commission also seeks further comment on several issues for consideration in any subsequent rulemaking.

DATES: The amendments published in this document will become effective [INSERT DATE ONE YEAR AFTER PUBLICATION IN THE FEDERAL REGISTER] except for the amendments to § 305.8 which will become effective [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Comments must be received on or before September 20, 2010.

ADDRESSES: Requests for copies of this document should be sent to: Public Reference Branch, Room 130, Federal Trade Commission, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. The complete record of this proceeding is also available at that address. Relevant portions of the proceeding, including this document, are available at <http://www.ftc.gov>.

Interested parties are invited to submit written comments electronically or in paper form by following the instructions in the SUPPLEMENTARY INFORMATION section below.

Comments in electronic form should be submitted by using the following weblink:

(<https://public.commentworks.com/ftc/lamplabels>) (and following the instructions on the web-based form). Comments filed in paper form should be mailed or delivered to the following address: Federal Trade Commission, Office of the Secretary, Room H-135 (Annex N), 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580, in the manner detailed in the Request for Comment part of the SUPPLEMENTARY INFORMATION section below.

FOR FURTHER INFORMATION CONTACT: Hampton Newsome, (202) 326-2889, Lemuel Dowdy, (202) 326-2981, or Matthew Wilshire, (202) 326-2976, Attorneys, Division of Enforcement, Bureau of Consumer Protection, Federal Trade Commission, Room M-8102B, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580.

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I. Introduction

The Energy Independence and Security Act of 2007 (Pub. L. 110-140) (“EISA”) directs the Commission to consider the effectiveness of its current labeling requirements for “lamps,” commonly referred to as light bulbs, and alternative labeling approaches.¹ Pursuant to this mandate, on November 10, 2009, the Commission sought comment on proposed revisions to existing labeling requirements.² Having reviewed the comments submitted, the Commission now publishes final amendments to the Appliance Labeling Rule (“Rule”) (16 CFR Part 305).³ The amendments require manufacturers to provide brightness and energy-cost information on the front of light bulb packages and a detailed “Lighting Facts” label on the side or rear. In addition to these package labeling disclosures, the amendments also require certain disclosures on the product. These new labeling requirements should help consumers choose energy efficient bulbs that meet their lighting needs.

In effectuating these changes, this document provides background on the EISA provisions and the Notice of Proposed Rulemaking (“NPRM”), discusses the public comments received in response to the NPRM, reaffirms the Commission’s intention to work with other agencies to promote consumer education, explains the effective date for the amendments, describes section-by-section the amendments to the Rule, requests comment on certain issues,

¹ This document uses the terms lamp, light bulb, and bulb interchangeably.

² 74 FR 57950 (Nov. 10, 2009).

³ The Rule’s full title is “Rule Concerning Disclosures Regarding Energy Consumption and Water Use of Certain Home Appliances And Other Products Required Under The Energy Policy And Conservation Act” (“Appliance Labeling Rule”).

and analyzes the impact of the amendments pursuant to the Paperwork Reduction and Regulatory Flexibility Acts.

II. Background

EISA directs the Department of Energy (“DOE”) to issue stringent energy efficiency standards for lighting products. These standards, which begin in 2012, will eliminate low efficiency incandescent light bulbs from the market.⁴ The remaining higher efficiency light bulbs will include products widely available now, such as compact fluorescent lamps (“CFLs”), as well as products likely to become increasingly available in the future, such as high efficiency solid-state lighting (*e.g.*, light-emitting diode (“LED”) products).

In conjunction with these new efficiency standards, EISA directs the FTC to consider the effectiveness of its current light bulb labeling requirements and possible alternatives to help consumers understand and choose new high efficiency bulbs that meet their needs. In particular, EISA directs the Commission to consider labeling disclosures addressing light level, light quality, lamp life, and total lifecycle cost.

In response, on July 18, 2008, the Commission published an Advance Notice of Proposed Rulemaking (“ANPR”) (73 FR 40988) seeking comment on potential label changes.⁵ The Commission then held a public roundtable on September 15, 2008.⁶ Commenters and roundtable participants discussed the effectiveness of current labeling requirements, as well as whether

⁴ 42 U.S.C. 6295(i).

⁵ The comments received in response to the ANPR are at <http://www.ftc.gov/os/comments/lightbulbs/index.shtm>.

⁶ A transcript of the roundtable can be found at <http://www.ftc.gov/bcp/workshops/lamp/transcript.pdf>.

labeling alternatives would help consumers in their purchasing decisions. Finally, the Commission conducted consumer research to assess potential revisions to its labeling requirements.⁷

III. Notice of Proposed Rulemaking

After reviewing the ANPR and Roundtable comments, as well as the consumer research, the Commission published a Notice of Proposed Rulemaking (“NPRM”) on November 10, 2009. The NPRM proposed a two-panel labeling format for light bulb packages: a front panel displaying brightness and energy-cost information, and a rear or side panel displaying a “Lighting Facts” label with additional information.⁸ The proposed mandatory disclosures included brightness, energy cost, bulb life, color appearance, wattage, mercury content, and voltage for nonstandard voltage bulbs. The proposal also gave manufacturers the discretion to place the ENERGY STAR logo on the Lighting Facts label for products covered by that program.⁹ However, the Commission did not propose disclosures addressing a bulb’s lifecycle or color rendering index.

In addition to changing the disclosures on package labels, the proposed amendments required a brightness disclosure on all the products themselves and a mercury disclosure on products containing mercury. Finally, the proposed amendments prescribed disclosures for the

⁷ See 73 FR 72800 (Dec. 1, 2008); 74 FR 7894 (Feb. 20, 2009). Study results are available at <http://www.ftc.gov/os/comments/lightbulbs/index.shtm>.

⁸ See 74 FR at 57953, Figure 2.

⁹ ENERGY STAR is a voluntary government program administered by the Environmental Protection Agency that identifies high-efficiency products. See www.energystar.gov. See also ENERGY STAR logo on Sample Label 11 in Appendix L of the Final Rule.

assumptions manufacturers use to calculate voluntary operating cost and life claims for bulbs, if they differ from the assumptions used to calculate those disclosures on the label.

IV. Effectiveness of Current Labeling Requirements

In its NPRM, the Commission explained that the current labeling requirements, which mandate disclosures for light output in lumens, energy use in watts, and life in hours, are not effective for high efficiency bulbs. The primary problem with the current label is that many consumers use wattage to measure brightness, even though wattage actually measures energy use.¹⁰

Consumers' use of watts, and not lumens, to gauge light output worked in a market dominated by incandescent bulbs because the wattage of these bulbs provides a consistent proxy for brightness. For example, a "100 watt" incandescent bulb typically provides enough light for reading, while a "40 watt" incandescent bulb typically provides sufficient brightness to light a hallway. However, as discussed in the NPRM, wattage does not provide a consistent measure of light output for high efficiency bulbs because a particular wattage can provide substantially different light output across technologies. For example, a traditional, standard incandescent bulb typically uses 100 watts to provide 1,600 lumens of light output. A CFL, on the other hand, can provide 1,600 lumens using only 25 watts, and an LED lamp can produce the same light output using even fewer watts.

No comments disputed the Commission's conclusion that the current label needs to be changed to better inform consumers about high efficiency bulbs, including addressing consumer

¹⁰ See 74 FR at 57952.

reliance on watts as a proxy for brightness. However, as discussed below, commenters offered various opinions about the proposed changes.

V. Public Comments and Final Amendments

The Commission received 24 comments in response to the NPRM.¹¹ As discussed in more detail below, the comments addressed the proposed product coverage, the proposed package label format and content, “off label” claims on the package, labeling on the product, reporting and testing requirements, consumer education, and the compliance burden.¹²

A. Product Coverage

In its NPRM, the Commission proposed applying the new labeling requirements to three types of common household (medium screw base) light bulbs: general service incandescents,¹³

¹¹ Unless otherwise stated, comments discussed in this document refer to the following: Buchanan, Robert #545052-00004; Burns-DeMelo, Heather #545052-00005; Consortium for Energy Efficiency (“CEE”) #545052-00027; DOE #545052-00029; Earthjustice #545052-00024; East China Hi-tech Industrialization Park (“ECHIP”) #545052-00018; Edison Electric Institute #545052-00023; Environmental Council of the States #545052-00021 (also known as the Quicksilver Caucus or “QSC”); Estes, Steve #545052-00007; Gainesville Regional Utilities #545052-00016; Gannon #545052-00003; GE Consumer and Industrial – Lighting (“GE”) #545052-00013; Green Seal #545052-00019; Lutron Electronics Co., Inc. #545052-00010; a committee of the state environmental agencies of Connecticut, Louisiana, Maine, Massachusetts, Minnesota, New York, Rhode Island, Vermont, and Washington (collectively referred to as IMERC) #545052-00012; Malpass #545052-00009; Minnesota Pollution Control Agency (“MPCA”) #545052-00028; Energy Efficiency Advocates (submitted by Natural Resources Defense Council) #545052-00017; National Electrical Manufacturers Association (“NEMA”) #545052-00026; OSRAM SYLVANIA #545052-00022; Rubinfeld, Adam #545052-00008; Ryan, Sean #545052-00011; Environmental Protection Agency (“EPA”) #545052-00014; Vranich, John #545052-00015. All these comments are available at <http://www.ftc.gov/os/comments/lamplabeling/index.shtm>.

¹² The comments did not address the issue of lifecycle cost. As explained in section V.B.2.h, the Commission is not requiring a lifecycle cost disclosure. *See also* 74 FR at 57959.

¹³ The final amendments require labeling for two types of incandescent bulbs that the EISA definitions do not cover: reflector lamps and 3-way incandescent lamps. As explained in the NPRM, prior to EISA, the Commission’s labeling rules covered these bulbs because they were

CFLs, and general service LEDs.¹⁴ The Commission also sought comment on whether it should include other types of consumer lamps under the new labeling requirements.

Comments: The Commission received two significant comments about product coverage. First, the Energy Efficiency Advocates¹⁵ urged the Commission to expand the labeling requirements to include any screw-base lamp regardless of base size, bulb size, bulb shape, or technology. In particular, they argued that consumers who buy intermediate and candelabra screw bulbs should receive the same information about light output and operating cost as proposed for medium screw-base bulbs.¹⁶ Second, GE and NEMA urged the Commission to exempt lamps that will no longer be sold after updated energy standards are issued. Specifically, beginning in 2012, new energy standards will phase out the sale of inefficient incandescent bulbs that do not meet specific efficiency standards. Because the timing

defined as “general service incandescent lamps.” 74 FR at 57953 n. 27. EISA excluded them from that definition and thus appears to have inadvertently removed these products from the law’s labeling requirements. *See* 42 U.S.C. 6291(30)(D). However, using our general authority under 42 U.S.C. 6294(a)(6), the Commission is continuing to require labeling for these products because for more than a decade the FTC has required consumer labels on these common products for which continued labeling would assist consumers. No comments suggested excluding them from the amended Rule.

¹⁴ 74 FR at 57952-3. Although the EISA amendments do not expressly require LED labeling, *see* 42 U.S.C. 6294, the Commission proposed to cover them using its general authority to label consumer products under 42 U.S.C. 6294(a)(6). *See* 74 FR at 57953 n. 26.

¹⁵ The Energy Efficiency Advocate comments, which were filed by the Natural Resources Defense Council (“NRDC”), also represented the views of the Alliance to Save Energy, American Council for an Energy-Efficient Economy (“ACEEE”), NRDC, Northeast Energy Efficiency Partnerships, and the Northwest Energy Efficiency Alliance.

¹⁶ In addition, Edison Electric Institute urged the Commission to require labeling of fossil fuel lamps such as natural gas lights, propane lights, and kerosene lights because of their high energy costs. For example, Edison Electric Institute estimated that a gas lamp using 2500 Btu/hr could cost approximately \$262.80 per year to operate.

of these standards is staggered, some incandescent bulbs will come off the market in 2012, others in 2013, and additional types 2014.¹⁷ In GE and NEMA's view, requiring label changes for bulbs scheduled to be discontinued over the next few years would waste manufacturing resources.

Discussion: The final amendments cover the same bulb types described in the NPRM. However, the Energy Efficiency Advocates' suggestion that the Commission require labeling for all screw-based bulbs deserves further consideration. Many non-medium screw-based bulbs, such as intermediate and candelabra-based bulbs, are available to consumers for household use. The Commission, however, cannot cover these products without additional information about the costs and benefits to businesses and consumers. Specifically, in order to require labeling for these products, the FTC would need information identifying the particular bulbs proposed for coverage, as well as information concerning: 1) whether these bulbs use significant amounts of energy; 2) whether competing bulb models vary in light output, energy use, life, and color temperature; 3) whether consumers are likely to use in-store package labels to compare products; and 4) whether package size or other factors create undue burdens for manufacturers.

¹⁷ See GE and NEMA comments. See also http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/lighting_legislation_fact_sheet_03_13_08.pdf (DOE schedule for efficiency standards).

Therefore, the Commission seeks comment on these issues.¹⁸ Under the Energy Policy and Conservation Act (“EPCA”), the Commission must consider reopening this rulemaking at least 180 days before the effective dates of the new DOE energy standards for incandescent lamps if the Commission determines that further labeling changes would help consumers.¹⁹ Based on this authority, the Commission seeks comment on these and other issues discussed below.

In response to GE and NEMA’s comments, the Commission exempts two categories of incandescent bulbs that will not meet 2012 energy efficiency standards.²⁰ The 2012 standards are scheduled to take effect just six months after the effective date for the new FTC labeling requirements.²¹ Imposing new requirements on bulbs that will be in production for only six months would entail significant short-term costs for manufacturers with limited benefit to consumers. Therefore, manufacturers must continue to use the current labeling requirements for these bulbs until production ceases in 2012.

¹⁸ The Commission also seeks comment on whether the label should require beam spread information for reflector lamps as suggested by the Energy Efficiency Advocates, and, if so, how beam spread should be measured and described. In addition, the Commission seeks comment on fossil fuel lamps, including whether they meet the definition of consumer product in the statute, 42 U.S.C. 6291, and whether they are commonly used by consumers. Finally, the definition of “incandescent lamp” in the final rule has been corrected to track the current statutory language in EPCA (42 U.S.C. 6291).

¹⁹ 42 U.S.C. 6294(a)(2)(D)(iii)(II)(bb).

²⁰ The two categories are: greater than 72 watt incandescent bulbs with lumen ranges between 1490 and 2600 and greater than 72 watt modified spectrum incandescents with lumen ranges of 1118 to 1950. *See* 42 U.S.C. 6295(i).

²¹ The effective date is discussed in section V.H.

The Commission is not exempting bulbs subject to the 2013 and 2014 efficiency standards. Because these bulbs will remain in production for more than a year after the effective date of the final amendments, and because Congress has identified them as inefficient, applying the new labeling requirements to the bulbs will provide benefits to consumers that outweigh any additional cost to industry.

B. Package Labeling

In its NPRM, the Commission also solicited comment on proposed changes to the package-label format and disclosures.²² Having considered the comments, the Commission: explains why the final amendments retain the proposed two-panel labeling scheme with some minor adjustments; prescribes the required package disclosures; discusses certain disclosures not included on the label; and, finally, sets out particular disclosure requirements for “off-label” energy and bulb life claims.

1. Two-Panel Format

In its NPRM, the Commission proposed a two-panel labeling format: a front panel with brightness (light output) and energy-cost information, and a side or rear panel with a Lighting Facts label containing additional information.²³ The Commission explained that this two-panel approach provides the most important information on the front and more detailed information on the side or rear, each in a simple-to-read format. The Commission sought comment on this two-panel approach, including whether smaller packages require alternative formats.

Comments: GE and NEMA asserted that the Commission should not require disclosures on the front panel, leaving that panel free for marketing messages. Conversely, CEE agreed with

²² 74 FR at 57953-60.

²³ 74 FR at 57953-4. “Lighting Facts” is a trademark held by the U.S. Government through the DOE solid-state lighting program. The FTC and DOE will work together to coordinate DOE’s voluntary Lighting Facts program for LED products with the FTC’s mandatory labeling for general service lamps. DOE explained in its comments that, to ensure a clear separation between the two agencies’ activities, DOE’s consumer-packaging efforts would address pin-based LED replacement lamps and LED luminaires, and not the medium screw-base LED bulbs covered by the FTC Rule.

the proposed amendments, arguing that the proposed front-panel disclosures highlight “important product attributes for consumers to quickly understand.”

GE and NEMA also raised concerns about the amount of package space required for the proposed disclosures. Specifically, they urged the Commission to allow manufacturers to modify the label format to fit small packages, as long as the information is clear and legible. In addition, NEMA noted that limited space could make it difficult to provide multilingual labels and provided examples of proposed bilingual labels in French and Spanish.

Finally, two commenters discussed multi-bulb packaging. GE commented that the final amendments should provide guidance for labeling packages containing more than one type of bulb. Earthjustice objected to an existing provision allowing manufacturers to place labels on bulk shipping cartons when the entire carton is sold at retail (§ 305.15(c)(4)). It asserted that retailers could take individual (unlabeled) packages out of the bulk container and display them separately without the required information.

Discussion: The final amendments retain the two-panel format.²⁴ As explained in the NPRM, consumer research identified brightness and energy information as particularly important to consumers.²⁵ The disclosure of these two key pieces of information on the front panel will allow consumers to make quick “on the shelf” comparisons. If only the Lighting

²⁴ Section 305.15(b)(1)-(3).

²⁵ 74 FR at 57954. Participants in the FTC focus group identified “brightness” as the most important bulb attribute. Moreover, in the FTC label study, respondents gave high scores to the importance of brightness as well as energy information. Similarly, other research conducted by Natural Resources Canada (“NRCan”) indicated that the “two top pieces of information people look for on light bulb packaging are brightness and energy usage or efficiency.” *Id.*

Facts label were available, consumers would have to remove packages from the shelves to access this important information.

Moreover, the Commission's two-panel approach does not differ significantly from the FDA's well-established food labeling requirements, which, along with the Nutrition Facts label on the back or side package panel, require that the net weight and product name be provided on the primary package panel.²⁶

In response to manufacturer concerns about bilingual labeling, the final amendments allow, but do not require, bilingual labeling. The Lighting Facts label may appear in a second language either on a separate label or on the same label following the English disclosures.²⁷ This approach will allow manufacturers to meet the need for bilingual packaging when necessary without creating an undue burden.

In contrast, FDA requires a bilingual label when a manufacturer makes a claim in a non-English language on a package.²⁸ In light of the substantial marketing directed at non-English speakers, the Commission seeks comment on whether it should impose a similar requirement for bulb labeling when manufacturers make non-English package claims.

²⁶ 21 CFR 101.3(d) and 101.105(a). FDA currently is exploring rule changes that would require additional front-of-package nutrition disclosures. 74 FR 62786 (Dec. 1, 2009).

²⁷ Section 305.15(b)(6). Appendix L contains an example of a bilingual Lighting Facts label.

²⁸ 21 CFR 101.15(c)(2). In addition, in a variety of contexts, the Commission requires disclosures to be made in the language in which products or services are marketed. *See* 16 CFR 14.9 (foreign language disclosures in advertising); 16 CFR 308.3(a)(1) (foreign language disclosures under Pay Per Call Rule); 16 CFR 429.1(a) (foreign language disclosure of right to cancel door-to-door sales); 16 CFR 455.5 (Spanish language version of FTC's used car disclosures); and 16 CFR 610.4(a)(3)(ii) (foreign language disclosures in marketing free credit reports).

To address commenter concerns about fitting the Lighting Facts label on small packages, the final amendments contain three changes. First, as discussed in sections V.B.2.b.i and V.B.2.f, the Commission shortened the explanatory text for both the cost assumptions and mercury disclosures. Second, the final amendments allow manufacturers to choose from three standard formats: a basic, rectangular format; a wide format; and a tall format.²⁹ These three formats should allow manufacturers to fit the Lighting Facts label on most packages. Third, for particularly small packages, manufacturers may use a smaller, linear, text-only Lighting Facts label, if: 1) the total surface area available for labeling is less than 24 square inches;³⁰ and 2) the package shape or size cannot accommodate any of the three standard formats (in English) on the rear or side panel.³¹

Finally, the Commission is not altering the bulb shipping carton provision. In promulgating this provision more than a decade ago,³² the Commission explained that the bulk-carton option applies only when lamps “are not packaged or labeled for individual retail sale”

²⁹ Section 305.15(b)(4). Each of these formats uses the same font and text size. The Commission notes that the final amendments do not dictate the label’s dimensions but instead specify the minimum font size and line thickness for the label. *See* Appendix L.

³⁰ Surface area is available to bear labeling if it is technologically feasible and practicable to put labeling information on the area and the area is likely to be seen by the consumer when handled.

³¹ Section 305.15(b)(5). This linear label criteria is similar to the FDA requirements for use of its linear version of the Nutrition Facts label. *See* 21 CFR 101.9(j)(13)(ii). Specifically, FDA’s requirements rest on the assumption that the FDA-mandated disclosures should occupy no more than 30 percent of the total package area. *See* 58 FR 2070, 2155 (Jan. 6, 1993). Here, the standard Lighting Facts label together with the front package disclosures uses no more than seven square inches of package space. Applying the same 30 percent analysis, the 24 square inch threshold for use of the linear light bulb label is reached when this seven square inches of required labeling space exceeds 30 percent of the overall package space, *i.e.* when the surface area of the package is 24 square inches or less.

³² 63 FR 38744 (July 20, 1998).

and when they are displayed in a “bulk shipping/retail display carton.”³³ Because the individual bulbs subject to this provision are not labeled for individual retail sale, the problems foreseen by Earthjustice are not likely to arise. Indeed, the Commission has not received any evidence that this provision has caused problems.³⁴

2. Package Disclosures

The final amendments retain the seven package-labeling disclosures proposed in the NPRM: brightness, energy cost, bulb life, color temperature (appearance), wattage, and, in some cases, voltage and mercury information.³⁵ The amendments do not include disclosures for color rendering index, total lifecycle cost, or several other disclosures suggested by the comments. Each of these disclosures is discussed below.

a. Brightness/Light Output

The NPRM proposed two changes to existing labeling requirements related to light output.³⁶ First, it proposed removing wattage information from the front of the package while continuing to require a prominent lumen disclosure. The Commission explained that this change aims to focus consumers on lumens, instead of watts, to determine light output. The Commission proposed placing a less prominent wattage disclosure on the Lighting Facts label. Second, the proposed amendments changed the term describing lumens from “light output” to

³³ See 63 FR at 38745.

³⁴ For packages containing more than one type of bulb (*e.g.*, a CFL and an incandescent), manufacturers should provide front-panel disclosures and a Lighting Facts label for each bulb type indicating which information applies to each bulb.

³⁵ 74 FR at 57954.

³⁶ *Id.*

“brightness.” Both the FTC focus group and NRCan research suggested that consumers prefer the term “brightness” to “light output,” and participants at the FTC’s Roundtable routinely used the term “brightness” when describing light output.³⁷

The NPRM did not propose requiring disclosure of watt equivalence, although manufacturers routinely communicate light output on CFL packages by providing conspicuous comparisons to incandescent lamps (*e.g.*, “this bulb is a ‘100 watt’ equivalent” or “13W=60W”).³⁸ The proposed amendments did not require such information because watt equivalence is likely to become much less important as the new DOE energy standards render most incandescent bulbs obsolete. Moreover, mandating a watt-equivalence disclosure could perpetuate consumer reliance on outdated information, thus hindering consumers’ transition to lumens to determine brightness.

Comments: The comments raised four primary issues regarding brightness/light output: 1) the use of the term “brightness” versus “light output;” 2) rounding the lumen rating on package fronts; 3) whether to permit a voluntary watt-equivalence disclosure; and 4) standards for voluntary watt-equivalence claims.³⁹

³⁷ See 74 FR at 57954 n. 37.

³⁸ Several comments in response to the ANPR recommended that the FTC require watt-equivalence information on the label. See, *e.g.*, CEE, NRDC, and ACEEE. NRDC also suggested the creation of categories similar to batteries (such as A, AAA, C, etc.), to describe light output. Roundtable Tr. at 29 (Horowitz). However, the Commission declined to create an entirely new rating system. Rather, the Commission decided to focus on educating consumers about lumens, a descriptor that already existed and may have had some consumer recognition. 74 FR at 57955 n. 39.

³⁹ In addition, ECHIP urged the Commission to require disclosures (such as lumens) to reflect values measured with the bulbs’ ballast. The amendments proposed in the NPRM would apply to bulbs with integrated ballasts exclusively. Under those amendments, manufacturers would measure lumens and other performance factors through testing of the bulbs with their ballasts.

First, CEE disagreed with the Commission’s proposal to require the term “brightness,” arguing that “light output” is the technically correct term. CEE explained that the term “brightness” encompasses factors other than lumens, such as color temperature, and therefore could confuse consumers, particularly those who work with lighting designers or read product literature. No other commenters challenged the use of the term “brightness” to describe lumens on the label, and GE indicated that brightness was an acceptable term to describe the lumen rating.

Second, both NEMA and GE urged the Commission to allow manufacturers to round lumen ratings on the front of the package to help consumers compare the brightness of bulbs. They stated that consumers now purchase bulbs with an eye toward a limited number of wattage categories, generally defined by 40, 60, 75, and 100-watt incandescents, and it will be difficult for consumers to transition from choosing bulbs in these discrete categories to choosing bulbs measured to a single lumen. Accordingly, NEMA and GE urged the Commission to allow rounding of lumen ratings to create similar “classes” for high efficiency light bulbs. For example, GE suggested rounding lumens on the package front to the nearest hundred (*e.g.*, 849 would become 800; 850 would become 900), along with providing a more precise lumen measurement (*e.g.*, 849) on the Lighting Facts label. To support this proposal, both NEMA and GE asserted that consumers cannot perceive differences in lumen output of ten percent or less.

Third, although CEE agreed that a watt-equivalence disclosure should not be required, it recommended allowing a voluntary watt-equivalence disclosure on the Lighting Facts label. CEE asserted that such a disclosure would assist consumers accustomed to measuring brightness in watts.

Therefore, there is no need to alter the proposed amendments in light of ECHIP’s comment.

Finally, the Energy Efficiency Advocates urged the Commission to set specific watt-equivalency standards for voluntary, off-label watt-equivalence claims on the package.⁴⁰ In particular, they identified the current ENERGY STAR standards as a source for such requirements.⁴¹ Similarly, the Energy Efficiency Advocates urged the Commission to require distinct watt-equivalency standards for comparing the brightness of high efficiency reflector lamps to incandescent reflector lamps, which differ from standard incandescent bulbs in their lumen output.⁴²

Discussion: The final amendments continue to require the term “brightness” to describe the lumen rating.⁴³ As explained in the NPRM, both the FTC focus group and Natural Resources Canada (“NRCan”) research suggest that consumers prefer the term “brightness” to “light output.”⁴⁴ Indeed, participants in this proceeding, including industry members, commonly used

⁴⁰ For example, such standards might require that any bulb touted as a “60-watt equivalent” must produce 800 or more lumens. NEMA also advocated for the Commission to set lumen-equivalence standards.

⁴¹ See ENERGY STAR CFL Program Requirements and Criteria for CFLS - Version 4.0, available at http://www.energystar.gov/ia/partners/product_specs/program_reqs/cfls_prog_req.pdf.

⁴² Because reflector lamps aim light in a specific direction, the light output from these lamps differs from that of standard incandescents. For example, Osram Sylvania’s 2008 Lamp and Ballast Catalog lists a 75 watt incandescent bulb as providing over 1100 lumens, whereas it lists a reflector bulb of the same wattage as providing less than 700 lumens. See Osram Sylvania, Lamp and Ballast Catalog 22 (2008), available at <http://assets.sylvania.com/assets/documents/Complete-Catalog.b176dbb1-d6e0-40f0-ab92-e768e58f5dc1.pdf>.

⁴³ Gainesville Regional Utilities recommended that the label also contain a lumen scale to help consumers understand brightness. However, a lumen scale would take up too much package space. As discussed in the NPRM, the Commission will consider developing a lumen scale for consumer education efforts. 74 FR at 57961.

⁴⁴ 74 FR at 57954 nn. 37-8.

the term “brightness” to refer to light output.⁴⁵ The Commission recognizes that the technical term for lumen output is “luminous flux,” not “brightness” (or “light output”). However, as noted in the NPRM, consumers will not likely consider this technical distinction material. If manufacturers prefer to use more precise light output terminology, they may provide such information elsewhere on the package.⁴⁶

The Commission also has decided to adopt, in part, NEMA and GE’s rounding proposal by permitting rounding to the five lumen increment (*e.g.*, 813 to 815) on the package front. Although this more limited rounding likely will not facilitate the creation of lumen “classes” as proposed by NEMA and GE, it should simplify on-the-shelf lumen comparisons for consumers if all the lumen numbers on the front of the package end in 0 or 5.⁴⁷ In fact, manufacturers already routinely express lumen ratings for typical household bulbs in multiples of five.

The Commission declines to permit rounding to the nearest hundred because it is concerned that such rounding could result in lumen ratings significantly higher than actual lumen output. Indeed, while NEMA and GE suggested that consumers cannot discern ten percent differences in lumen output, this may not always be the case because a person’s perception of

⁴⁵ *See, e.g.*, Roundtable Tr. at 32, 35, 41, 67, and 121. *See also* NEMA and NRDC comments.

⁴⁶ NEMA noted that solid-state lighting manufacturers also typically disclose the directional light of reflector and PAR lamps (measured in candelas) and suggested that such a disclosure may be necessary for these lamps. The Commission seeks additional comment on whether to amend the Appliance Labeling Rule to include a directional light disclosure. Nothing in the Rule, however, prohibits manufacturers from providing this information off the label, so long as it is substantiated.

⁴⁷ The FDA has recognized that rounding can “make a label easier for a consumer to review and understand.” 58 FR 2079, 2161 (Jan. 6, 1993).

light output varies depending on light intensity, color, and spacial considerations in the visual environment.⁴⁸

The Commission also declines to permit watt-equivalence disclosures on the Lighting Facts label, as suggested by CEE, because allowing such disclosures could encourage consumer reliance on watts to determine brightness. However, marketers have the freedom to make voluntary watt-equivalence claims on packaging off of the label. These off-label claims also may encourage reliance on watts in the short term, but allowing marketers this flexibility strikes the right balance between providing consumers the short term watt-equivalence information they need and using the label to transition consumers in the long term to relying on lumens. Specifically, as the new labeling regime moves consumers toward lumens, marketers can alter their claims to meet consumers' changing expectations because they can adjust their watt-equivalence claims more nimbly than the Commission can change its labeling rules.

Finally, at this time, the Commission is not establishing standards for voluntary watt-equivalence claims by adopting the ENERGY STAR or any other standard. The Commission did not seek comment in the NPRM on whether a watt-equivalence standard is necessary to avoid consumer deception or on the efficacy of any particular standard. Moreover, establishing a standard is complicated by potential discrepancies in watt equivalence caused by variables such as color appearance. For example, while many 60 watt incandescent bulbs have an 800 lumen rating, a 60 watt bulb with a cooler light appearance could have a significantly lower

⁴⁸ See Gunter Wyszecki, W. S. Stiles, *Color Science: Concepts and Methods, Quantitative Data and Formulae* 567-70 (2d ed. 1982). In addition, even assuming such ten percent differences are immaterial, rounding to the nearest 100 lumens would lead to lumen ratings with a greater than ten percent differential for bulbs with low light output (e.g., bulbs rounded from 351 to 400 lumens).

rating. Accordingly, the Commission seeks additional comment on whether it should establish standards for watt-equivalence claims, including whether watt-equivalence claims for bulbs that do not meet such standards can be qualified to avoid deception, and if so, how such claims should be qualified.

To avoid deception, however, manufacturers must ensure they can substantiate their watt-equivalence claims. Such substantiation must take into account brightness, as well as other material factors, such as color appearance. In doing so, the ENERGY STAR watt-equivalence standards provide an important benchmark. Indeed, manufacturers making watt-equivalence claims that stray from the ENERGY STAR standard must possess another competent and reliable basis to substantiate their claims. Moreover, manufacturers that make watt-equivalence claims for bulbs with lower lumen ratings than those prescribed in the ENERGY STAR standards should strongly consider whether they need to qualify their claims to avoid deception. Put simply, deceptive watt-equivalence comparisons are subject to FTC law enforcement actions.

b. Energy Use/Efficiency

The comments in response to the NPRM addressed four primary issues related to the proposed energy use disclosure: 1) whether operating cost is the best energy use descriptor; 2) whether to require a five-star rating system; 3) whether to permit a lumens per watt disclosure on the Lighting Facts label; and 4) where to locate any wattage disclosure. Each of these issues is addressed below.

i. Operating Cost

In its NPRM, the Commission proposed requiring estimated annual operating cost as the primary energy disclosure on the front package panel and on the rear (or side) panel Lighting

Facts label. Specifically, the NPRM required that the front panel display “estimated energy cost” in an annual dollar figure (*e.g.*, \$7.49 per year).⁴⁹ The proposed Lighting Facts label would provide this same cost information, along with the rate and usage assumptions used to calculate the disclosure (*i.e.*, three hours per day and 11.4 cents per kWh),⁵⁰ and a notice that “Your costs will depend on your rates and use.”

The Commission provided three reasons for choosing annual energy cost as the primary energy disclosure. First, estimated annual energy cost provides a simple way to convey a bulb’s energy usage. Second, in the label study, energy-cost information performed better than a five-star rating system and a lumens per watt disclosure at communicating energy usage. Finally, unlike efficiency ratings (*e.g.*, lumens per watt or a five-star system), an energy-cost disclosure should help consumers avoid buying bulbs that are brighter than necessary, and therefore, save energy.⁵¹

Comments: Several commenters supported the Commission’s proposal to describe energy use via an operating-cost disclosure. For example, CEE stated that its members have extensive experience with communicating energy information and supported the operating-cost

⁴⁹ 74 FR at 57955.

⁵⁰ The general consensus at the Roundtable was that three hours per day is a reasonable estimate. Roundtable Tr. at 54. The electricity cost figure is based on 2009 DOE data. *See* 74 FR 26675 (June 3, 2009). Consistent with the FTC’s approach on the EnergyGuide label, 16 CFR 305.10, the Commission would change the cost rate every five years based on DOE data. This approach minimizes label changes while ensuring that cost information reflects a reasonable estimate of national average electricity rates. However, as with appliance labeling, the Commission may revisit the energy-cost estimate more frequently should such costs change significantly.

⁵¹ In many cases, a higher energy-efficiency rating for a particular bulb equates to lower energy use, and thus, lower energy cost – but not always. For example, a bright bulb with a high efficiency rating may cost much more to operate than a dimmer bulb with a lower efficiency rating.

disclosure.⁵² The Energy Efficiency Advocates also strongly supported the cost disclosure and concurred with the rate and usage assumptions used to calculate the estimate. GE found the cost disclosure and rate and usage assumptions acceptable, but, along with NEMA, suggested that the FTC shorten the sentence accompanying the disclosure to read “Will vary by your rates and use.”

NEMA, however, raised concerns about the operating-cost disclosure. It questioned the disclosure’s usefulness and long-term accuracy because electricity rates and usage vary by region and consumer and change over time. In NEMA’s view, unless shoppers make a conscious effort to review the explanatory rate assumption language appearing on the Lighting Facts label, they will view the disclosed cost as their actual operating cost. In addition, NEMA stated that “tracking the cost of power for accuracy and competitive fairness would be costly and laborious,” which the Commission understands to mean that manufacturers frequently would have to adjust the rates used for the label. Thus, NEMA argued, the Commission should not require an operating-cost disclosure.

Discussion: The final amendments maintain the operating-cost disclosure.⁵³ First, the operating-cost disclosure is an effective comparative tool that will allow consumers to easily compare competing products across bulb types. Second, similar to the Commission’s EnergyGuide label for appliances, the cost is disclosed as an “Estimated Energy Cost,” clarifying that it is not their actual operating cost. Consumers seeking additional information about the rate

⁵² In addition, CEE urged the Commission to develop standard definitions for terms like “energy savings” and “energy efficient” to prevent marketers from using those terms to describe products that are not energy efficient.

⁵³ Section 305.15(3)(ii).

assumption used to calculate this estimate can find it on the Lighting Facts label. Finally, the Commission finds that these benefits outweigh the disadvantages, including the need to adjust the rate assumption periodically over time.

The final amendments include a minor change to the electricity cost rate used for the label. Instead of the proposed 11.4 cents per kWh, the amendments require the use of 11 cents per kWh. This simple, rounded cost figure should be easier for consumers to understand.⁵⁴

Finally, consistent with NEMA and GE's suggestion, the Commission has shortened the explanatory cost information on the label.⁵⁵ Instead of "Your cost will depend on your rates and use," the final amendments require the language "Cost depends on rates and use." This revised language will provide the same message while using less space on the package.⁵⁶

⁵⁴ GE suggested that the FTC indicate whether operating costs should be "rounded up or down." Manufacturers should round costs to the nearest cent.

⁵⁵ The final amendments, however, do not contain standard definitions for advertising terms such as "energy savings" or "energy efficient" as suggested by CEE. The FTC declines to permanently fix the meanings of these terms. Under FTC law, advertising terms have the meaning that reasonable consumers ascribe to them, which can change over time. Thus, marketers must be cognizant of the meaning consumers take from advertising terms and must substantiate any expressed or implied advertising claims. *See, e.g.*, FTC Policy Statement on Deception, appended to *Cliffdale Associates, Inc.*, 103 F.T.C. 110, 174 (1984).

⁵⁶ Rubinfeld recommended that the Commission also require a scale on the label to further explain a bulb's estimated annual operating cost, either in addition to, or in place of, the proposed color appearance scale. An additional scale, however, is not feasible because there is room for only one scale on the label. Moreover, given that the label already includes a clear, prominent operating-cost disclosure, the benefits of an operating-cost scale do not outweigh the benefits of the color appearance scale, which are discussed in section V.B.2.d.

ii. Five-Star Rating System

In its NPRM, the Commission did not propose using a five-star rating system for the energy disclosure.⁵⁷ While the research suggested some benefits, the Commission identified five problems with the five-star system.⁵⁸ First, the system did not perform better than energy cost in helping study respondents answer energy questions. Second, the star system may have a greater tendency to convey inadvertent quality representations. Third, the five-star system could create confusion over time because some bulbs rated as efficient today may be rated as inefficient in the future. Fourth, in some contexts, the five-star system's interaction with ENERGY STAR may cause confusion. Fifth, as noted above (note 51), efficiency ratings sometimes can lead consumers to buy bulbs that are brighter, and thus use more energy, than is necessary.⁵⁹

Comments: The comments revealed mixed opinions about the adoption of a categorical (*i.e.*, five-star) energy efficiency descriptor. CEE recommended against any star system because consumers might wrongly view the disclosure as an indicator of overall bulb quality and because consumers might confuse the star-rating system with the ENERGY STAR logo. However, the Energy Efficiency Advocates supported the star rating. Specifically, they argued that the FTC's research demonstrates that a five-star system would complement the cost disclosure. In their view, the system would not only help consumers identify energy efficient bulbs, but would also be more useful and trustworthy than other disclosures. The Energy Efficiency Advocates noted these findings were consistent with research indicating that categorical labeling helps motivate

⁵⁷ The Commission reached a similar conclusion in considering a star rating for appliance EnergyGuide labels. 72 FR 6836, 6844-6846 (Feb. 13, 2007).

⁵⁸ 74 FR at 57956.

⁵⁹ See n. 51, *supra*.

consumers to identify and purchase higher efficiency products. With regard to consumer inferences about quality, they noted that all descriptors in the FTC study performed poorly on the quality question and that consumer education will be necessary regardless of the descriptor.

The Energy Efficiency Advocates also questioned the FTC's interpretation of its consumer research. In particular, they noted that where respondents viewed labels bearing the ENERGY STAR logo, the FTC study found no differences in responses between the five-star rating system and other disclosures. The five-star rating system only performed poorly compared to the other disclosures where none of the labels in the question had an ENERGY STAR logo. In their view, the former scenario better represented the real shopping environment. Finally, they noted that the FTC's concerns about updating a star rating system over time also applies to any comparative label system, including those used for the FTC's EnergyGuide program.

Discussion: The Commission declines to adopt a five-star rating system.⁶⁰ While the Energy Efficiency Advocates raised important points, the Commission's NPRM addressed many of these issues.

First, the Commission's study raised valid concerns regarding the five-star system communicating bulb quality to consumers. Although all treatments (*i.e.*, label designs) in the study yielded incorrect answers about quality, the study's main purpose was to identify performance differences between various label designs and not the significance of overall

⁶⁰ Earthjustice asserted that EPCA requires comparative efficiency information such as a star-rating system. EPCA, however, grants the Commission discretion to require bulb disclosures "*the Commission deems necessary* to enable consumers to select the most energy efficient lamps which meet their requirements." 42 U.S.C. 6294(a)(2)(D)(i) (emphasis added). The Commission does not deem this particular disclosure necessary for reasons outlined here.

response rates. Looking at the differences between treatments, the star rating caused confusion more often than other energy disclosures.⁶¹

Second, the Commission finds that a five-star system could cause confusion for consumers over time. For example, DOE's upcoming EISA-mandated efficiency standards would drastically alter any rating system developed by the Commission at this time. As a result of such changes, bulbs rated as four stars today may rate only one or two stars in the near future. Such changes could confuse consumers.

Third, a star rating system would be more difficult to maintain than an operating-cost disclosure. Whereas changes to operating-cost estimates simply require mathematical calculations, changes to categorical rating systems require subjective judgments. For instance, the European Union recently had difficulty reaching consensus on how to recalibrate the rating categories for appliances in its energy-labeling program.⁶² This experience demonstrates the significant policy challenges that can complicate efforts to update rating systems.

Finally, the Commission remains concerned that consumers would confuse a star rating with ENERGY STAR. In the study, the star rating system was more likely than other disclosures to create confusion with ENERGY STAR when no ENERGY STAR logo appeared

⁶¹ Specifically, as noted in the NPRM, when respondents were asked to identify the most reliable bulb, those who viewed the star descriptor on the front panel were somewhat less likely than those who viewed other energy descriptors to provide correct responses, which were "can't tell" or "not sure." The percentages of respondents who answered correctly, grouped by front-panel energy descriptor, were: energy cost (29.36 percent), lumens per watt (26.16 percent), and stars (21.83 percent). 74 FR at 57956 n. 51.

⁶² Specifically, policymakers had to determine whether to recalibrate their appliance ratings by lowering the A-G grade (e.g., A to C) on less energy efficient appliances, or creating new higher grades (e.g., A++) for more energy efficient appliances. See "EU energy efficiency labelling: a debate that rages from A to G," Guardian.Co.Uk., Dec. 9, 2009, available at <http://www.guardian.co.uk/environment/blog/2009/dec/09/energy-efficiency-labelling/print>.

on the product.⁶³ The Energy Efficiency Advocates assert that light bulbs ordinarily are marked with the ENERGY STAR logo and that the study did not show confusion with ENERGY STAR in that circumstance. However, because ENERGY STAR currently covers only CFLs and LEDs, consumers will encounter many bulb packages without the ENERGY STAR logo. Indeed, if a retailer groups its bulbs by technology, a consumer examining a shelf of halogen bulbs will not see any products marked with the ENERGY STAR logo.⁶⁴ As indicated in the study, these consumers may confuse a star rating with ENERGY STAR.

Importantly, the FTC label aims to complement, not detract from, the ENERGY STAR rating. As the Commission explained in its NPRM, the combination of the FTC label and the ENERGY STAR program provides a sound framework for conveying energy information to consumers and promoting energy efficiency. Specifically, the FTC label displays detailed energy information about bulbs regardless of energy efficiency, while ENERGY STAR provides the U.S. Government's imprimatur for high efficiency products. This system, as a whole, provides a robust source of energy information for consumers.⁶⁵

⁶³ 74 FR at 57956 n. 52.

⁶⁴ Currently, halogen bulbs do not qualify as ENERGY STAR products. *See* www.energystar.gov/index.cfm?c=products.pr_find_es_products (listing ENERGY STAR covered lighting products).

⁶⁵ The Commission also rejects Green Seal's request to allow manufacturers to voluntarily place their certification logo on the label next to the ENERGY STAR logo. The appearance of such a logo on a required government label may imply government endorsement that does not exist and detract from ENERGY STAR. Nothing in the final amendments prohibits the use of certification marks on the package. However, the manufacturer must have substantiation for any express or implied claims generated by such certifications. *See* 16 CFR Part 260 (FTC's "Green Guides").

iii. Lumens Per Watt

In its NPRM, the Commission did not propose requiring lumens per watt on the Lighting Facts label because, in its study, respondents viewing lumens per watt information were more likely to provide incorrect answers to most energy use and efficiency questions than respondents viewing other descriptors. In addition, lumens per watt information could lead consumers to choose brighter bulbs than needed.⁶⁶ Lumens per watt, however, is a common efficiency metric used in the lighting industry and serves as the yardstick for DOE efficiency standards and performance criteria in the ENERGY STAR program. It also appears on the label developed by DOE for its LED program. Therefore, the Commission sought comment on whether to allow or require a lumens per watt disclosure on the Lighting Facts label.

Comments: Most comments recommended a voluntary lumens per watt disclosure on the Lighting Facts label. For example, CEE agreed that the FTC should not require lumens per watt, but believed a voluntary disclosure should be permitted because lumens per watt is the standard metric for efficiency within the lighting industry. The Energy Efficiency Advocates agreed, predicting that consumers will have greater recognition of and interest in lumens per watt in the future, especially after implementation of EISA's public education programs. OSRAM also favored a voluntary lumens per watt disclosure, asserting that this will eventually become the preeminent method for communicating energy efficiency for general service lamps. OSRAM explained that, like "miles per gallon" for fuel economy, lumens per watt allows consumers to compare efficiency across product types and brands.

⁶⁶ 74 FR at 57956.

Discussion: Despite these comments, the final amendments do not allow lumens per watt on the Lighting Facts label. The FTC designed its Lighting Facts label for typical consumers, and, as demonstrated by the FTC’s research, the inclusion of lumens per watt information likely will not assist these consumers. As detailed in the NPRM, lumens per watt performed poorly in helping respondents answer energy use and efficiency questions.⁶⁷ Moreover, because consumers are not yet familiar with the basic concept of lumens, the more complex lumens per watt disclosure likely would be ignored or cause confusion, hindering consumers’ transition to using lumens. Additionally, as discussed above, lumens per watt could lead consumers to choose bulbs that are brighter than needed. Nevertheless, nothing in the Rule prohibits manufacturers from providing lumens per watt information elsewhere on their packaging or in other marketing materials. In addition, once consumers become more familiar with the concept of lumens, the Commission can revisit whether to require, or allow, lumens per watt on the label.⁶⁸

⁶⁷ 74 FR at 57956.

⁶⁸ QSC and MPCA recommended that the final amendments require manufacturers to disclose a bulb’s “power factor” rating on the label as a further indication of energy efficiency. Power factor, which is expressed as a number between 0 and 1, is a measure of the efficiency with which a device uses the power made available to it from the electric grid. Because of the way residential energy costs are calculated, a bulb’s power factor rating does not impact a consumer’s residential energy costs. However, the widespread use of bulbs with high power factor ratings could positively impact the overall efficiency of the electric grid and, thus, have a beneficial effect on the environment. It is not clear from these comments whether consumers understand this term or whether a bulb’s power factor rating is, or will become, important to consumers. Accordingly, the Commission is not requiring this disclosure. However, the Commission seeks comment on whether this disclosure should be reconsidered if the Commission reopens the rulemaking as permitted by EPCA. *See* section V.A.

iv. Wattage

In its NPRM, the Commission proposed requiring wattage on the Lighting Facts label and not on the front of the package.⁶⁹ The Commission explained that, presently, consumers use wattage as a proxy for brightness. Therefore, a mandatory wattage disclosure on the package front could impede consumers' transition to lumens as the primary brightness indicator for high efficiency bulbs. At the same time, as noted in the NPRM, the proposed amendments retained a less prominent wattage disclosure on the Lighting Facts label because precise wattage information may be important to consumers seeking to ensure a bulb does not exceed the maximum wattage allowable for a particular fixture.

Comments: Gannon argued that by making the wattage disclosure less prominent, the Commission will make it difficult for consumers to determine whether a bulb meets the wattage ratings of certain lamp fixtures. Specifically, Gannon recommended that wattage appear as the second disclosure on the Lighting Facts label immediately after lumens.

The Energy Efficiency Advocates argued that the Commission should change the proposed "energy used" descriptor for wattage to a more technically correct term such as "power" or "electricity used." They argued that the proposed wording perpetuates consumer confusion about the difference between power and energy.⁷⁰ In contrast, both NEMA and GE found "energy used" acceptable.

⁶⁹ 74 FR at 57954.

⁷⁰ The Energy Efficiency Advocates noted that, technically, wattage is a measure of power while kWh is a measure of energy.

Discussion: The final amendments continue to require wattage as the fifth disclosure on the Lighting Facts label.⁷¹ As discussed in the NPRM, many consumers use wattage as a proxy for brightness.⁷² To the extent the ranking of a descriptor on the Lighting Facts label makes it more likely that consumers will view that descriptor, the other descriptors listed before watts on the label – brightness, energy cost, life, and color appearance – are more important attributes for consumers to consider when choosing high efficiency bulbs. In any event, there is no evidence that the hierarchy of descriptors on the Lighting Facts label materially impacts consumers’ perception of one descriptor over another.

The final amendments continue to require the term “energy used” to describe watts on the label.⁷³ While the term “power” is technically accurate, “energy used” has appeared on the label for nearly two decades without any apparent problems. In addition, some consumers might incorrectly interpret the term “power” to relate to the strength of light output.

c. Bulb Life

In its NPRM, the Commission proposed a bulb life disclosure stated in years (rounded to the nearest tenth of a year, *e.g.*, 1.1 years), which would be calculated assuming usage of three hours per day.⁷⁴

⁷¹ Section 305.15(b)(3)(v).

⁷² 74 FR at 57952.

⁷³ *Id.*

⁷⁴ 74 FR at 57956-7; *see* Prototype Label 6.

Comments: Several commenters supported the proposed bulb life disclosure.⁷⁵ In particular, CEE noted that this approach ensures that all manufacturers would calculate life based upon the same assumptions.

The Energy Efficiency Advocates, however, objected to a bulb life disclosure stated in years, recommending a total-hours disclosure. First, they asserted that predicating a life disclosure on a usage assumption is misleading because such an assumption fails to account for substantial differences in usage among consumers. Second, they asserted that a disclosure stated in hours is more effective in conveying differences in bulb life than a disclosure in years.

Discussion: Consistent with the NPRM, the final amendments require a bulb life disclosure stated in years rounded to the nearest tenth calculated assuming bulb usage of three hours per day.⁷⁶ For the reasons stated in its NPRM, the Commission finds that this life disclosure will be more useful to consumers than a disclosure expressed in total hours. In particular, in the study, respondents showed a slight preference for life in years over life in hours and the NRCan research noted that consumers have difficulty relating hours of use to bulb life.⁷⁷

The Energy Efficiency Advocates' observation that each consumer's bulb usage differs is undoubtedly correct. However, disclosure of the three-hour per day usage assumption on the Lighting Facts label will allow consumers to compare that assumption to their own expected use. Moreover, by rounding to the nearest tenth of a year, the disclosure will communicate significant differences in bulb life to consumers. For example, consumers will be able to choose between

⁷⁵ CEE, GE, and NEMA comments.

⁷⁶ Section 305.15(b)(3)(iii).

⁷⁷ 74 FR at 57957.

bulbs with stated lives of 1.7 years and 1.2 years. Finally, relatively small differences in bulb life that may be captured better by a total-hours disclosure likely will become less important to consumers as high efficiency bulbs, some of which can last over a decade,⁷⁸ become more prevalent.⁷⁹

d. Color Appearance

In its NPRM, the Commission proposed a color appearance disclosure on the Lighting Facts label consisting of a black and white scale labeled “warm” on one end and “cool” on the other.⁸⁰ The scale also included the correlated color temperature of the bulb, measured in Kelvin.⁸¹ As discussed in the NPRM, this color appearance scale addresses the fact that some bulbs have a warm, yellow appearance, while others have a cooler, white or blueish appearance.⁸² The Commission proposed a scale to describe color appearance because, in the

⁷⁸ DOE noted that it is working to improve bulb life testing methodologies for LED lamps, which can last for many years and thus present unique testing challenges. The Commission strongly recommends that manufacturers use DOE guidance as it becomes available to substantiate life claims for LEDs.

⁷⁹ ECHIP urged the Commission to consider a bulb life disclosure that shows the number of hours a bulb will operate before it loses 50 percent of its initial lumen rating. ECHIP did not provide any evidence that bulb light output diminishes significantly over time, nor did it suggest a metric for measuring any such reduction in light output. Therefore, the Commission declines to adopt this disclosure.

⁸⁰ 74 FR at 57957.

⁸¹ Light color appearance is evidenced scientifically by correlated color temperature, which is measured in Kelvin (“K”). Such color measurements generally range between 2700K and 6500K. Bulbs with lower measurements (*e.g.*, 2700K) produce light that has a yellowish appearance. Bulbs with higher measurements produce light that is whiter (*e.g.*, 4100K) or blueish (*e.g.*, 6500K). Thus, a higher correlated color temperature actually results in a cooler bulb appearance.

⁸² As discussed in the NPRM, many consumers may not understand the concept of color appearance. However, they are likely to learn about, and place more emphasis on, color appearance as new products emerge that provide a wider variety of color temperatures. Indeed,

FTC label study, a scale performed better than word descriptors commonly used in bulb marketing such as “soft white” or “daylight.” However, the NPRM stated that manufacturers could use such descriptors elsewhere on the package.

In addition, the Commission sought comment on whether the final amendments should require the scale be printed in color. In particular, the Commission sought comment on the costs color printing would impose on small manufacturers. Finally, the Commission asked whether this disclosure should be titled “Light Appearance” instead of “Color Appearance” to guard against the impression that the disclosure pertains to colored lights (*e.g.*, red or green).

Comments: No comments objected to requiring a color appearance scale on the Lighting Facts label. Several, however, urged the Commission to use the term “light appearance” instead of “color appearance.”⁸³

The comments also offered several specific suggestions about the scale. First, NEMA preferred a scale printed in color, but suggested that manufacturers have the option of printing in black and white. Likewise, CEE suggested that a scale printed in color be optional. Second, both CEE and NEMA suggested that the highest and lowest Kelvin values appear on the ends of the scale, along with mid-range Kelvin value in the center. More specifically, NEMA stated that the numbers “2700K, 4100K and 6500K” should appear below the scale to clarify the possible range and, in its view, protect against manufacturers trying to enhance the perception of a bulb’s color appearance by manipulating the length of the scale. Third, NEMA suggested that the actual color temperature measured in Kelvin appear in bold on the top of the scale, rather than on

the research suggested that once respondents became aware of the concept of color appearance, it became an important issue to them. 74 FR at 57957 n. 56.

⁸³ CEE, NEMA, and GE comments.

the bottom of the scale as proposed. Finally, NEMA suggested that the Commission change the descriptors at the ends of the scale to “warm white” and “cool white.”

Discussion: As suggested by the comments, the final amendments use the term “Light Appearance” instead of “color appearance” to describe the disclosure on the label.⁸⁴ This change will minimize the possibility that consumers will interpret the disclosure to convey information about colored lights.

While there may be some benefit to a color version of the scale, the final amendments require the black and white version⁸⁵ for two reasons. First, a single version ensures consistency, which is essential to building consumer recognition and confidence in the Lighting Facts label. Indeed, if the final amendments permit a scale printed in color, consumers may not understand why one package has a color scale and another has only black and white.⁸⁶ Second, the black and white label requires less package space. As discussed in section V.B.1, this is an important consideration because of the limited space available for labeling on many bulb packages.

In addition, the final amendments do not require Kelvin measurements at the endpoints and middle of the scale. Rather, consistent with the NPRM, the final amendments maintain the “warm” and “cool” monikers at the ends of the scale, which will correspond to 2600K and 6600K, respectively.⁸⁷ Given the small size of the scale, additional Kelvin numbering could

⁸⁴ Section 305.15(b)(3)(iv).

⁸⁵ Section 305.15(b)(4)(i).

⁸⁶ The Commission also considered requiring the color version on all labels but rejected such a course because it would force manufacturers to use full color printing on the back or side package panels for all their covered products. The benefit yielded by the color scale does not justify this burden.

⁸⁷ Section 305.15(b)(3)(iv).

make it difficult for consumers to identify the Kelvin number applicable to the bulb.⁸⁸

Moreover, the final amendments require the light appearance scale to be proportional in size to the width of the label. Accordingly, the scale will be sufficiently uniform in size to prevent manufacturers from manipulating it in a way that could mislead consumers.

Finally, the amendments do not label the ends of the scale “cool white” and “warm white” as suggested by NEMA and GE. Industry members already use these terms to refer to the specific color temperatures, 3000K and 4100K, respectively.⁸⁹ As noted above, however, the ends of the scale correspond with 2600K and 6600K. Thus, a label that assigns these terms to the low and high end of the scale would in effect give them new meanings, potentially causing confusion.

e. Voltage

In its NPRM, the Commission proposed a voltage disclosure on the Lighting Facts label consistent with current labeling requirements.⁹⁰ Specifically, voltage only would be required on the label if it differed from the predominant U.S. residential voltage of 120.⁹¹

Comments: The Commission received no comments on this issue.

⁸⁸ The Commission is not moving the Kelvin number disclosure to the top of the scale as suggested by NEMA. The number will be more prominent below the scale because it will be the only information listed there. If the number were moved to the top of the scale, a particularly low or high number could crowd the terms “warm” or “cool,” respectively.

⁸⁹ ANSI C78.376 (“American National Standard for Specifications for the Chromaticity of Fluorescent Lamps”) uses “warm white” to refer to a 3000 K bulb and “cool white” to refer to a 4100 K bulb. *See also* 74 FR 7894, 7896 n. 9 (Feb. 20, 2009).

⁹⁰ 74 FR at 57958. Voltage is a measure of the electromotive force of electricity. *See discussion* at 59 FR 25176, 25184 (May 13, 1994).

⁹¹ Section 305.15(b)(3)(vii).

Discussion: The final amendments continue to require manufacturers to disclose voltage on the Lighting Facts label only if it is not 120.

f. Mercury

In its NPRM, the Commission proposed a mercury disclosure for CFLs on the Lighting Facts label to warn consumers of possible hazards from broken bulbs.⁹² That disclosure stated: “Contains Mercury Hg [encircled]: Manage in accordance with local, state, and federal disposal laws. For information: epa.gov/bulbrecycling or 1-800-XXX-XXXX.”⁹³ The proposed language is similar to CFL disclosures currently required by the ENERGY STAR program and to those recommended by NEMA.⁹⁴

The Commission intended the proposed amendments to work in conjunction with state mercury disclosure requirements, to the extent possible. Therefore, the Commission sought comment on the impact of the proposed disclosures on existing state requirements, including whether, how, and why the Commission should address any inconsistencies between its proposed disclosure and state requirements.

⁹² Broken CFLs can release mercury vapor. Although manufacturers have greatly reduced the amount of mercury in CFLs, they have not eliminated it. CFLs contain, on average, about 5 milligrams, or 1/100th of the amount of mercury found in a mercury fever thermometer. See <http://www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/basic.htm>.

⁹³ 74 FR at 57958. The NPRM also proposed a mercury disclosure on the product, which is discussed in section V.C.1.

⁹⁴ ENERGY STAR requires manufacturers to label their packages with: (1) the symbol “Hg” within a circle; (2) “Lamp Contains Mercury;” and (3) either www.epa.gov/bulbrecycling or the industry site www.lamprecycle.org. NEMA recommends the following language: “Hg [encircled] - LAMP CONTAINS MERCURY; MANAGE IN ACCORDANCE WITH DISPOSAL LAWS; See www.lamprecycle.org.”

Comments: Commenters agreed that the final amendments should require a mercury disclosure on the Lighting Facts label. Several, however, proposed revising the disclosure. CEE recommended adding the term “recycle” to remind consumers of the environmental benefits of recycling CFLs. NEMA, GE, and EPA recommended referencing “clean-up” procedures. NEMA and GE suggested: “For Clean-Up and Disposal see: www.lamprecycle.org or 1-800-XXX-XXXX.”

NEMA and GE favored giving manufacturers the option of including the industry website along with, or in lieu of, the EPA website proposed by the Commission because the industry website, www.lamprecycle.org, has existed for ten years, is well known, and was redesigned recently to make it more consumer friendly. Similarly, NEMA and GE recommended that manufacturers have the option to include their toll-free numbers with, or in lieu of, EPA’s toll-free number.

EPA suggested revisions to encompass “the entire lifecycle of the lamp and breakage.” Specifically, EPA proposed, “Contains Mercury: For proper handling, disposal, or clean-up, see epa.gov/cfl.” Additionally, it supported inclusion of an EPA website, but recommended the soon to be developed “epa.gov/cfl.” It also cautioned against including any toll-free telephone number because funding for public and private hotlines is uncertain.

Commenters disagreed about the inclusion of the “Hg” symbol. EPA and state regulators objected to using the symbol, explaining that they have received feedback indicating that consumers “ha[ve] no idea what the Hg symbol means.” NEMA and GE supported the symbol because NEMA members already provide it on CFL packages and because it is recognized internationally.

In addition, IMERC, QSC, and MPCA recommended increasing the type size of the disclosure.⁹⁵ Based on its members' regulatory experience, IMERC stated that "any font size less than 8 to 10 point font is not legible to the average consumer." Therefore, all three commenters recommended ten-point type for the entire disclosure, as generally required by state laws.

The commenters expressed opposing views on state preemption.⁹⁶ Commenters representing states—MPCA, QSC, and IMERC—asserted that the proposed amendments would not preempt state disclosure laws. On the other hand, NEMA expected that to the extent the Commission's amendments differed from state labeling requirements, it would preempt them.

Discussion: In response to the comments, the final amendments revise the mercury disclosure on the Lighting Facts label to read: "**Contains Mercury** For more on clean up and safe disposal, visit epa.gov/cfl."⁹⁷ In doing so, the Commission made a number of changes suggested by commenters, declined to make others, and attempted to minimize potential conflicts with state requirements, as discussed below.

The Commission agrees with commenters CEE, NEMA, and GE that the mercury disclosure should alert consumers to follow certain steps when cleaning up and disposing of CFLs because improper clean up or disposal can release mercury vapor, which EPA describes as

⁹⁵ The NPRM proposed 8 point type for the term "Contains Mercury," 6 point for the "Hg" symbol, and 7 point for the remaining disclosure language.

⁹⁶ IMERC noted that the following states require mercury disclosures on CFL packages: Connecticut, Louisiana, Maine, Massachusetts, Minnesota, New York, Rhode Island, Vermont, Washington, Maryland, and Oregon.

⁹⁷ Section 305.15(b)(3)(vii).

“harmful to human and ecological health.”⁹⁸ The final disclosure requirement specifically addresses “clean up and safe disposal” to alert consumers to this risk.⁹⁹

The revised disclosure omits any reference to a toll-free number and contains a link to a new EPA website. The Commission agrees with EPA’s comment that, due to the uncertainty of future funding, a toll-free number should not be included in the disclosure. Moreover, the final disclosure directs consumers to the EPA website, which the EPA has determined is most appropriate. The disclosure does not include an industry website, as proposed by NEMA and GE, because EPA’s expertise on environmental issues, as well as safe clean up and disposal, puts it in the best position to provide consumers with this important information.¹⁰⁰

Additionally, the final amendments do not include CEE’s suggestion that the disclosure instruct consumers to “recycle” CFLs. The Commission is concerned that the term “recycle” could lead consumers to dispose of CFLs in home recycling bins, a practice that may pose an environmental hazard from potential bulb breakage.¹⁰¹ Similarly, the final amendments do not use the term “handle” in addition to “clean up” and “disposal” as suggested by EPA. In the Commission’s experience, vague terms such as “handle” do not add to consumer understanding.

⁹⁸ EPA, Mercury Releases and Spills, *available at www.epa.gov/hg/spills*.

⁹⁹ ECHIP recommended requiring disclosure of the amount of mercury in a bulb. The Commission declines to do so because there is no evidence in the record demonstrating that this information would help consumers.

¹⁰⁰ IMERC recommended retaining the proposed disclosure’s reference to “local, state, and federal” laws. However, the Commission concludes that the reference is unnecessary because the EPA website will provide consumers with legal compliance information.

¹⁰¹ EPA’s website warns that because breaking CFLs will release mercury into the environment, consumers should recycle the bulbs through a “household hazardous waste collection and recycling program[.]” See “Mercury-Containing Light Bulb (Lamp) Frequent Questions,” *available at www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/faqs.htm*.

The disclosure no longer requires the “Hg” symbol in light of the states’ and EPA’s comments that consumers do not understand the symbol. However, manufacturers may voluntarily include the symbol in the disclosure after the term “Contains Mercury.” This flexibility will allow manufacturers to comply with state and ENERGY STAR requirements.¹⁰²

The final amendments also increase the disclosure’s minimum size to a uniform ten-point type.¹⁰³ This minimum type size harmonizes the disclosure with several states’ requirements.¹⁰⁴ As discussed above, the final amendments attempt to minimize conflicts with state requirements while providing disclosure requirements that are practical and benefit consumers.

g. Color Rendering Index (Not Included on Label)

In its NPRM, the Commission did not propose a Color Rendering Index (“CRI”) disclosure.¹⁰⁵ CRI measures, on a scale of 0 to 100, how the color of an object appears when illuminated by a bulb in comparison to a reference light source of the same color temperature.¹⁰⁶ In short, a higher CRI rated bulb renders an object’s color better than a lower rated bulb. As discussed in the NPRM, comments at the Roundtable and in response to the ANPR indicated that a CRI disclosure on the label would not help consumers. Specifically, commenters noted that,

¹⁰² ENERGY STAR currently requires the “Hg” symbol on packaging for qualifying CFLs. *See ENERGY STAR Program Requirements and Criteria for CFLs - Version 4.0, available at www.energystar.gov/ia/partners/product_specs/program_reqs/cfls_prog_req.pdf*. In addition, IMERC noted that Connecticut requires the Hg symbol. *See Conn. Gen. Stat. § 22a-619(g)(7)*.

¹⁰³ *See* Prototype Label 6.

¹⁰⁴ *See, e.g.*, Vt. Stat. Ann. tit. 10 § 7106(d) (Vermont); La. Admin. Code tit 33, § 2713(F)(2) (Louisiana); 06-096 Me. Code. R. Ch. 870 § 5(B) (Maine); 12-030-030 R.I. Code R. § 8.3.2.4 (ten-point font or larger presumed legible) (Rhode Island).

¹⁰⁵ 74 FR at 57960.

¹⁰⁶ A standard incandescent bulb has a CRI of 100. *Id.*

starting in 2012, EISA mandates a minimum CRI rating of 80 for all bulbs¹⁰⁷ and consumers are not able to discern material differences in CRI above this threshold.¹⁰⁸ Therefore, the Commission did not propose a CRI disclosure, but sought comment on whether to allow a voluntary CRI disclosure on the Lighting Facts label.

Comments: NEMA and CEE supported a voluntary disclosure. NEMA asserted that CRI will gain in importance with emerging LED technology, but did not explain why. CEE stated that manufacturers should have the discretion to include a CRI rating on the label. However, it did not explain why a voluntary disclosure would benefit consumers, and agreed that CRI did not warrant a mandatory disclosure. CEE also noted that the National Institute of Standards and Technology (“NIST”) is researching a color rendering measurement that may be superior to CRI.

Discussion: The final amendments do not permit a CRI disclosure on the Lighting Facts label. As explained in the NPRM, consumers will not benefit from a CRI disclosure after the minimum CRI rating of 80 goes into effect in 2012. Furthermore, CEE noted that NIST is researching an alternative measurement for color rendering. If NIST develops such a measurement, the Commission will consider whether it sufficiently benefits consumers to warrant placing it on the label. In the meantime, nothing prohibits manufacturers from making substantiated off-label CRI claims on the package.

¹⁰⁷ 42 U.S.C. 6295(i)(B)(ii).

¹⁰⁸ See Roundtable Tr., Horowitz at 91 (“Within the lighting industry, it’s assumed if you’re 80, you’re giving at least pretty good color rendering.”); Howley at 100.

h. Total Lifecycle Cost (Not Included on Label)

In its NPRM, the Commission did not propose a lifecycle cost disclosure on the label.¹⁰⁹ Several Roundtable participants noted that calculating accurate lifecycle cost is impractical because of the uncertainty and fluctuation of costs that such a disclosure would be based on, such as retail and disposal costs.¹¹⁰

Comments: The Commission received no comments on this issue.

Discussion: The final amendments do not include a total lifecycle cost disclosure. Marketers making lifecycle cost claims must possess competent and reliable scientific evidence to support their claims.

i. Other Disclosures (Not Included on Label)

Three commenters suggested requiring additional disclosures not addressed in the NPRM.

Comments: First, Lutron Electronics suggested a label disclosure indicating whether a bulb can be dimmed. It asserted that such a disclosure would reduce consumer disappointment with high efficiency bulbs, many of which do not dim. In contrast, NEMA asserted that a dimmer disclosure would unduly complicate the label and cause consumer confusion.¹¹¹ Second, MPCA and QSC recommended requiring a lead-content disclosure because lead is a toxic substance currently found in most bulbs. Finally, Buchanan asked whether cold temperatures

¹⁰⁹ 74 FR at 57959-60. EISA directs the Commission to consider a total lifecycle cost disclosure. 42 U.S.C. 6294(a)(2)(D)(iii)(I)(bb).

¹¹⁰ See Roundtable Tr. at 50, 58-59 and NEMA Comments.

¹¹¹ NEMA suggested that any on-label dimmer disclosure be voluntary.

negatively affect CFL performance, and suggested requiring a cold-weather disclosure if that is the case.

Discussion: The Commission does not adopt these proposed disclosures. Although some consumers may value dimmer information, there is insufficient evidence to conclude that the benefits of a dimmer disclosure justify using scarce label space. Manufacturers can make a dimmer disclosure elsewhere on the package, if necessary, to inform consumers about product performance.

The Commission is also not requiring a lead-content disclosure. Although most light bulbs contain lead, unlike for the mercury in CFLs, the Commission has not received any details concerning any consumer risk from lead in bulbs or the benefits of any lead disclosure. Moreover, guidance published by EPA and the United States Consumer Product Safety Commission concerning lead in the home does not reference any threat from light bulbs.¹¹² Therefore, the final amendments do not require a lead disclosure. However, the Commission seeks further comment on this issue to determine if such a disclosure is warranted.

Finally, because the Commission did not receive any comments demonstrating that cold temperatures diminish CFL performance, the final amendments do not require a cold-weather performance disclosure.

3. Off-Label Package Claims

Manufacturers regularly make off-label performance and efficiency claims on their packaging to market their bulbs. The NPRM expressed concern that these claims could

¹¹² See EPA, Protect Your Family From Lead in Your Home, *available at* <http://www.epa.gov/lead/pubs/leadpdf.pdf>.

undermine label disclosures regarding bulb life and operating cost.¹¹³ For example, a package could prominently claim a five-year bulb life, assuming two-hour per day use, contradicting the on-label life disclosure based upon a three-hour per day assumption.

To address this problem, the Commission proposed requiring manufacturers making off-label claims about life or energy cost to: 1) clearly and conspicuously disclose the assumptions underlying their claim; and 2) feature the same life or energy information (*i.e.*, claim) based on the electricity rate and usage assumptions required for the label in close proximity to, and with equal clarity and conspicuousness as, the off-label claim. Thus, in the prior example, the manufacturer would have to clearly and conspicuously disclose that the five-year life claim is based on a two-hour per day use assumption and disclose the bulb's life based on the three-hour assumption used for the on-label disclosure.

Comments: No commenter specifically objected to these proposed requirements. However, some urged going beyond a triggered disclosure to ban or restrict certain off-label package claims, including bulb life and energy-cost claims based on assumptions that differ from those used for the Lighting Facts label.

Three commenters supported barring claims not based on assumptions prescribed by the Commission. Specifically, GE joined NEMA in proposing that the final amendments bar all claims based on use and cost assumptions differing from those required for on-label disclosures. In addition, NEMA recommended prescribing, to the extent not already proposed, certain assumptions for claims related to CRI, energy cost, and watt equivalence. Similarly, the Energy Efficiency Advocates supported banning several types of claims that do not conform to prescribed assumptions or fail to report data in a prescribed manner. They further recommended

¹¹³ 74 FR at 57959.

requiring manufacturers to base comparative claims (*e.g.*, “saves X dollars compared to other bulbs”) on comparisons to a standard incandescent bulb, rather than the least efficient type of incandescent bulbs.

The Energy Efficiency Advocates and NEMA also suggested regulating the format of off-label claims so that they do not detract from or dilute the meaning of the label disclosures. As an example, the Energy Efficiency Advocates suggested limiting the font size of power-use or watt-equivalence claims to the size of the front-panel disclosures. In addition, while not offering specific recommendations, NEMA voiced support for specific formatting requirements to prevent consumer confusion.

Discussion: Despite comments urging a ban of off-label claims that are not based on Commission-prescribed assumptions, the final amendments neither prohibit claims based on alternate assumptions nor mandate a particular format. While a lifetime claim based on an assumption of other than three-hour use per day (or a cost claim based on an electricity price other than 11 cents per kWh) could be misleading, banning such claims limits manufacturers’ ability to convey useful, non-deceptive information. For example, a manufacturer may place a chart on its package with cost information based on several electricity price assumptions. Such a chart could help consumers in locations with higher electricity prices by providing the operating cost of the bulb in their region. Moreover, the Commission cannot conclude that manufacturers can make such claims non-deceptively in only one format.

Given the potential for confusion, however, the final amendments continue to require manufactures who make such off-label claims to clearly and conspicuously disclose the assumptions used to derive them (*e.g.*, two-hour per day bulb use).¹¹⁴ Moreover, consistent with

¹¹⁴ Section 305.15(b)(6).

the NPRM, these manufacturers must repeat the claim using the label assumptions with equal clarity and conspicuousness, and in close proximity to the off-label claim. For example, manufacturers could comply by presenting consumers with a chart showing the cost of operating a bulb at several realistic electricity price points, as long as one is 11 cents per kWh (the assumption required for the label). The Commission, however, cautions manufacturers that they must have substantiation for their claims and that unrealistic assumptions could render claims misleading.

C. Product Labeling

In addition to package labeling, the NPRM proposed requiring a mercury disclosure and a lumen disclosure directly on the product.¹¹⁵ These proposed disclosures are addressed below.

1. Mercury

In its NPRM, the Commission proposed requiring manufacturers to print the following information on CFL products: “Contains MERCURY. See epa.gov/bulbrecycling or 1-800-XXX-XXXX.”¹¹⁶ The NPRM proposed this on-product disclosure because consumers may not have packaging to refer to when a bulb burns out or breaks. Therefore, consumers may not have this important information when they most need it.

Comments: Commenters disagreed about the proposed product disclosure. GE and NEMA opposed the proposal, urging the Commission to require just the “Hg” symbol because CFL bases generally do not have room for lengthy disclosures.¹¹⁷ They further asserted that on-

¹¹⁵ For incandescent and LED bulbs, on-product disclosures are likely to appear on the bulb’s outer casing. For CFLs, these disclosures are likely to appear on the bulb’s base.

¹¹⁶ 74 FR at 57960.

¹¹⁷ GE and NEMA further noted that bulbs sold in different countries would require the proposed disclosure in multiple languages, further lengthening the disclosure.

product disclosures are unnecessary because consumers typically store extra light bulbs in their original packaging, allowing them to refer to those packages for mercury information.

In contrast, EPA, IMERC, and QSC supported the disclosure. Specifically, they asserted that a more detailed on-product disclosure than “Hg” is necessary because most consumers do not understand the “Hg” symbol. IMERC further noted that CFL bases generally have sufficient room for short disclosures. In addition, EPA recommended adding language referencing bulb disposal, proposing: “Contains Mercury. If broken or burned out, see *www.epa.gov/cfl*.”¹¹⁸

Discussion: The final amendments require the following disclosure on all general service lamps containing mercury in at least eight-point type: “Mercury disposal: *epa.gov/cfl*.”¹¹⁹ As discussed below, this disclosure is needed to ensure that consumers are aware of fundamental safety information.

For the reasons noted above (section V.B.2.f), the on-product mercury disclosure uses the EPA website and omits a toll-free number. The Commission also has omitted the “Hg” symbol because it is concerned that consumers will not understand the symbol.

To address GE and NEMA’s concerns about the length of the disclosure, the Commission has abbreviated it and reduced the font size from ten to eight-point type. FTC staff’s review of several standard CFL lamp ballasts demonstrates that there is sufficient space on the product for this truncated disclosure,¹²⁰ which balances the need to clearly impart important information to consumers with the limited space available on the product.

¹¹⁸ As with package labeling, EPA recommended eliminating the toll-free number due to uncertain funding and recommended use of its *www.epa.gov/cfl* web address.

¹¹⁹ Section 305.15(b)(7)(ii).

¹²⁰ This conclusion is consistent with IMERC’s observation about available space on CFL bases.

Additionally, even if many consumers do store bulb packaging, it is still important to have an on-product disclosure. First, many other consumers presumably dispose of the bulb's packaging, and thus, absent an on-product disclosure, will not have this important safety information when they most need it. Second, disclosing the information in two different places (on the label and the product) significantly increases the chance that consumers will access this information and dispose of CFLs properly. Therefore, the burden of an additional on-product disclosure is warranted.

2. Lumens

In its NPRM, the Commission proposed requiring an on-product lumen disclosure, explaining that this information would help consumers purchase appropriate replacement bulbs, as well as reinforce the importance of lumens for measuring brightness.¹²¹

Comments: The Energy Efficiency Advocates strongly supported this disclosure. Specifically, they explained that an on-product disclosure would inform consumers about a bulb's brightness when they remove it, thereby enabling them to seek a replacement bulb with the desired comparative brightness. On the other hand, NEMA objected, noting the difficulty and expense of marking information on a lamp. In addition, NEMA explained that available space on the product is often scarce and manufacturers cannot guarantee clarity when marking information.

Discussion: The final amendments require an on-product lumen disclosure, which must be in at least eight-point type to ensure legibility.¹²² As noted by the Energy Efficiency Advocates, on-product lumen information will give consumers the information they need to

¹²¹ 74 FR at 57960.

¹²² Section 305.15(b)(7)(i).

purchase appropriate replacement bulbs. Indeed, given the long life of many high efficiency bulbs, consumers may not remember the brightness of a bulb, or have the original packaging, when it comes time to replace it.

Furthermore, notwithstanding NEMA's concerns, FTC staff's review of covered bulbs indicates that these bulbs have room for this short disclosure. With respect to CFLs, staff has observed that they have room on the base for this additional, small disclosure. With respect to other bulbs, there is ample room for the disclosure on the glass casing.¹²³

D. Reporting Requirements

EPCA mandates that manufacturers collect and report to the FTC energy use and light output information, developed in accordance with applicable DOE testing procedures, about all bulbs covered by the Appliance Labeling Rule.¹²⁴ Because no applicable DOE test procedures existed when the FTC last amended the labeling requirements for common household bulbs in 1994, the Commission stayed these requirements at that time.¹²⁵ DOE, however, has since issued test procedures for all bulbs subject to the proposed labeling requirements, except LEDs.¹²⁶ Accordingly, the NPRM proposed lifting the stay effective in 2012 and requiring reporting for all covered bulbs, except LEDs.¹²⁷

¹²³ Nonetheless, if it simply is not possible to fit the required lumen disclosure on a particular product, manufacturers can petition the Commission for an exemption.

¹²⁴ 42 U.S.C. 6296(b)(4).

¹²⁵ See 59 FR 25176, 25201-25202 (May 13, 1994).

¹²⁶ See 10 CFR 430.23(r) & (y).

¹²⁷ 74 FR at 57960. Specifically, for each model of bulb they distribute, manufacturers are required to report to the FTC the model number, starting serial number or other means of identifying the date of manufacture, as well as test results showing the wattage, light output, and, for general service fluorescent lamps, CRI of the product. Manufacturers must report this

Comments: Earthjustice objected to delaying the effective date for lifting the stay until 2012. It asserted that manufacturers should report this information sooner to hasten the FTC's ability to verify the information manufacturers put on the new label.

In addition, the Energy Efficiency Advocates urged the Commission to apply the reporting requirements to LEDs, and to expand the reporting requirements to include bulb life and color temperature information. They contend that these additional reporting requirements are necessary to verify the information disclosed on the label.

Discussion: The final amendments lift the stay, effective the date of publication of this document.¹²⁸ Because the Appliance Labeling Rule currently specifies March 1 as the annual reporting date,¹²⁹ manufacturers' first annual report for covered bulbs will be due on March 1, 2011.¹³⁰ The Commission agrees that it should not further delay imposition of the reporting requirements because this information will help ensure that marketers have substantiation for the information they put on the label. However, the Commission declines to require reporting for LEDs, as suggested by the Energy Efficiency Advocates, because DOE has not issued a test for those bulbs.

In addition, the final amendments expand the reporting requirements to include bulb life and color appearance information for bulbs with applicable DOE testing procedures. Presently, DOE has testing procedures to measure the life of CFLs, as well as the color temperature of

information annually on the date indicated in the Rule, except for new models, for which manufacturers must submit a report prior to the initial product distribution.

¹²⁸ Section 305.8.

¹²⁹ 16 CFR 305.8(b).

¹³⁰ For new models distributed 30 days after the date of publication, manufacturers must report before distribution. 16 CFR 305.8(c).

incandescent bulbs,¹³¹ so the final amendments require reporting for these bulbs. The information will be useful to the FTC in its review of manufacturers' disclosures. Moreover, reporting this additional information should impose little or no additional burden on manufacturers because they will need this information in order to properly label their bulbs. The Commission will consider life and color temperature reporting for other bulbs as DOE develops additional testing procedures.

E. Testing Requirements

The NPRM proposed adding general service incandescent lamps, general service fluorescent lamps, and medium base CFLs to the list of products required to be tested pursuant to approved DOE procedures.¹³² If DOE has no test for a particular disclosure, (*e.g.*, color temperature), manufacturers must possess and rely upon competent and reliable scientific tests to substantiate the disclosure.

Comments: DOE commented that the Commission should require a specific test procedure for measuring certain disclosures for LEDs. Specifically, DOE urged the Commission to require use of Illuminating Engineering Society (IES) test IES-LM-79-2008 ("LM-79"), which it identified as the industry standard for measuring the light output, efficacy (lumens per watt), and color characteristics of LED bulbs. DOE requires this test as a condition of participation in its voluntary "Lighting Facts" program for LED lamps.

Discussion: The final amendments contain the same testing requirements proposed in the NPRM.¹³³ They do not impose the specific test procedure for LEDs requested by DOE because

¹³¹ 10 CFR 430, Subpt. B, Appendices R and W.

¹³² 74 FR at 57960.

¹³³ Section 305.5.

the Commission has not sought comment on this issue.¹³⁴ In light of DOE’s substantial expertise in this area, however, the final amendments include LM-79 as a non-required testing procedure that the Commission deems acceptable to substantiate light output and color temperature disclosures for LEDs.¹³⁵

In addition, just as it advanced the effective date for the reporting requirements, the Commission also advances the effective date for the testing requirements for general service incandescent lamps, general service fluorescent lamps, and medium-base CFLs to coincide with the effective date of the labeling requirements. Specifically, manufacturers must base all Lighting Facts label disclosures for these bulbs on applicable DOE tests or, if none exist, other competent and reliable scientific tests.

F. Website and Paper Catalog Requirements

In its NPRM, the Commission proposed requiring websites and paper catalogs selling light bulbs to disclose the same information that appears on the Lighting Facts label in a manner consistent with section 305.20.¹³⁶ Moreover, to encourage uniform disclosures and to reduce the burden on paper catalog and online merchants, the proposed amendments permitted, but did not require, marketers to comply by posting an image of the Lighting Facts label for each covered

¹³⁴ The Commission now seeks comment on whether this test should be required. It will weigh any comments when it considers whether to reopen the rulemaking not later than 180 days before the effective date of the new labeling requirements as mandated by EISA. 42 U.S.C. 6294(a)(2)(D)(iii)(II)(bb).

¹³⁵ The Commission recommends that LED manufacturers consult with DOE for guidance in substantiating life claims for LEDs.

¹³⁶ 74 FR at 57960-1. This requirement comports with EPCA, which requires catalogs to “contain all information required to be displayed on the label, except as otherwise provided by rule of the Commission.” 42 U.S.C. 6296(a).

bulb. These proposed amendments would ensure that consumers shopping online and in paper catalogs have access to the same information as consumers shopping in stores.

Comments: The Commission received no comments on this proposal.

Discussion: The final amendments maintain the requirements proposed in the NPRM with one change.¹³⁷ Consistent with the graphic labeling requirements for appliances, the final amendments permit web site and paper catalog sellers that do not reproduce the Lighting Facts label in its entirety to omit the light appearance temperature scale and make only a Kelvin temperature disclosure (*e.g.*, 2700 K). This change is designed to address difficulties some online and catalog marketers might have reproducing the scale. Nonetheless, the Commission encourages online and paper catalog marketers simply to reproduce the Lighting Facts label when possible to provide information to consumers in a clear, familiar format.

G. Consumer Education

In its NPRM, in response to EISA's mandate that the FTC work with DOE and other agencies to conduct a proactive national program of "consumer awareness, information, and education," the Commission explained that it is considering various approaches to consumer education about energy efficient lighting choices.¹³⁸ The NPRM noted that consumer education may include a detailed color temperature scale similar to that considered in NRCan's research and currently used in DOE's solid-state lighting program.¹³⁹

Comments: NEMA, GE, CEE, and Estes supported extensive education efforts to help consumers understand high efficiency bulbs and the new label. The Energy Efficiency

¹³⁷ Section 305.20.

¹³⁸ 74 FR at 57961.

¹³⁹ See <http://www.lighting-facts.com>.

Advocates specifically endorsed developing watt-equivalence charts to display to consumers at the point of sale.

Discussion: The Commission will keep these comments in mind as it works with DOE and other agencies on consumer education efforts.

H. Effective Date of Labeling Requirements

In its NPRM, the Commission did not propose an effective date for the new labeling requirements. Rather, the Commission sought comment on when the new requirements should become effective.

Comments: NEMA stated that the amendments should allow manufacturers to implement labeling changes on a rolling basis over one to two years. Vranich noted that the longer the implementation period, the more manufacturers can mitigate costs by phasing in new labeling when they make package changes in the normal course of business.

Discussion: The Commission sets the effective date for the labeling requirements one year after issuance of this document. This one-year period should provide manufacturers with adequate time to redesign labels and packaging, as well as to reduce package inventory. The Commission provided manufacturers with the same one-year period when it last amended the labeling requirements in 1994, without any discernible problem.¹⁴⁰ The Commission encourages manufacturers to begin using the new label before the effective date, if possible.

VI. Section by Section Description of Final Amendments

Lamp Coverage (section 305.3): The new labeling requirements apply to medium screw base general service incandescent (including halogen and reflector), compact fluorescent, and LED lamps. The final amendments group these products under the term “general service lamp.”

¹⁴⁰ 59 FR 25176 (May 13, 1994).

Substantiating Required Disclosures (section 305.5): The amendments require manufacturers to follow DOE test procedures if such procedures are applicable to their products to substantiate claims required by the Rule. For lamp types or information not covered by the DOE test procedure but required by the Rule, manufacturers must possess and rely upon competent and reliable scientific tests to substantiate their required representations.

Testing, Reporting, and Sampling Requirements (sections 305.5, 305.6, and 305.8):

Manufacturers must submit data for their labeled lamps based on applicable DOE test procedures. The amendments also make minor conforming changes to the terms used in the sampling requirements to reflect the revised definitions for covered lamp products.

Product Labeling (section 305.15(b)): Manufacturers must make a lumen disclosure and, if applicable, a mercury disclosure on the product.

Front Package Panel (section 305.15(b) & (c)): The final amendments require two disclosures on the front package panel: brightness in lumens and energy cost in dollars per year.

Rear or Side Package Panel (section 305.15(b) & (c)): The back (or side) panel must contain detailed disclosures in the form of a Lighting Facts label similar to the Nutrition Facts label required on food packaging. The disclosures on the Lighting Facts label detail brightness, energy cost, bulb life, light appearance, watts, and, in some cases, voltage and mercury information.

Cost and Life Claims on Packages (section 305.15(c)): Manufacturers that make a cost or life-related claim on the package based on an electricity cost figure or usage rate other than that required on the Lighting Facts label must also make an equally clear and conspicuous disclosure of the same information using the electricity cost figure and usage assumption on the Lighting Facts label.

Catalog Requirements (section 305.20): Catalog sellers (including websites) must disclose, for each bulb, the same information required on the Lighting Facts label.

Test Records (section 305.21): Manufacturers must maintain and provide upon request by the Commission, test records for correlated color temperature in addition to light output, energy use, and bulb life ratings already required by the Rule.

VII. Request for Comment

The Commission invites interested persons to submit written comments as requested in this document.¹⁴¹ Please provide explanations for your answers and supporting evidence where appropriate. All comments should be filed as prescribed below, and must be received on or before September 20, 2010.

Interested parties are invited to submit written comments electronically or in paper form. Comments should refer to “Lamp Labeling Amendments, Project No. P084206” to facilitate the organization of comments. Please note that your comment – including your name and your state – will be placed on the public record of this proceeding, including on the publicly accessible FTC website at <http://www.ftc.gov/os/publiccomments.shtm>.

Because comments will be made public, they should not include any sensitive personal information, such as any individual’s Social Security Number; date of birth; driver’s license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. Comments also should not include any sensitive health information, such as medical records or other individually identifiable health

¹⁴¹ Comments should address the issues for which comments have been requested (*i.e.*, product coverage and beam spread information (V.A.), bilingual disclosures (V.B.1), directional light disclosures and watt-equivalence standards (V.B.2.a.), power factor (V.B.2.b.), lead disclosures (V.B.2.i.), and LED test procedures (V.E.)). The Commission is not seeking general comments on the final amendments.

information. In addition, comments should not include “any trade secret or any commercial or financial information which is obtained from any person and which is privileged or confidential” as provided in section 6(f) of the Federal Trade Commission Act (“FTC Act”), 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2). Comments containing matter for which confidential treatment is requested must be filed in paper form, must be clearly labeled “Confidential,” and must comply with FTC Rule 4.9(c).¹⁴²

Because U.S. mail addressed to the FTC is subject to delay due to heightened security screening, please consider submitting your comments in electronic form. Comments filed in electronic form should be submitted using the following weblink: <https://public.commentworks.com/lamplabels> (and following the instructions on the web-based form). To ensure that the Commission considers an electronic comment, you must file it on the web-based form at the weblink <https://public.commentworks.com/lamplabels>. If this document appears at www.regulations.gov/search/index.jsp, you may also file an electronic comment through that website. The Commission will consider all comments that *regulations.gov* forwards to it. You may also visit the FTC website at <http://www.FTC.gov> to read the document and the news release describing it.

A comment filed in paper form should include the “Lamp Labeling Amendments, Project No. P084206” reference both in the text and on the envelope, and should be mailed or delivered to the following address: Federal Trade Commission, Office of the Secretary, Room H-135 (Annex N), 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. The FTC is requesting

¹⁴² The comment must be accompanied by an explicit request for confidential treatment, including the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. The request will be granted or denied by the Commission’s General Counsel, consistent with applicable law and the public interest. See FTC Rule 4.9(c), 16 CFR 4.9(c).

that any comment filed in paper form be sent by courier or overnight service, if possible, because U.S. postal mail in the Washington area and at the Commission is subject to delay due to heightened security precautions.

The FTC Act and other laws that the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives, whether filed in paper or electronic form. Comments received will be available to the public on the FTC website, to the extent practicable, at <http://www.ftc.gov/os/publiccomments.shtml>. As a matter of discretion, the FTC makes every effort to remove home contact information for individuals from the public comments it receives before placing those comments on the FTC website. More information, including routine uses permitted by the Privacy Act, may be found in the FTC's privacy policy, at <http://www.ftc.gov/ftc/privacy.htm>.

VIII. Paperwork Reduction Act

The final amendments contain label disclosure provisions that constitute "collection of information" requirements as defined by 5 CFR 1320.3(c), the definitional provision within Office of Management and Budget ("OMB") regulations that implement the Paperwork Reduction Act ("PRA").¹⁴³ OMB has approved the Appliance Labeling Rule's existing information collection requirements through May 31, 2011 (OMB Control No. 3084-0069). The amendments make changes in the Rule's labeling requirements. Accordingly, the Commission has submitted the NPRM and a Supporting Statement to OMB for review under the PRA.¹⁴⁴

¹⁴³ 44 U.S.C. 3501-3521.

¹⁴⁴ As was the case with the NPRM, the PRA analysis for this rulemaking focuses strictly on the information collection requirements created by and/or otherwise affected by the amendments. Unaffected information collection provisions, specifically those regarding recordkeeping and

Burden estimates for the amendments are based on data previously submitted by manufacturers to the FTC under the Rule's existing requirements and on the staff's general knowledge of manufacturing practices.

In response to the NPRM, two comments addressed the compliance costs of the proposed amendments. NEMA explained that the proposal "grossly underestimates" the cost of labeling changes but did not provide any specific details. Vranich provided cost estimates based on past FDA studies of food label changes, including capital cost estimates for administration, graphic design, and printing changes on a per product basis.

In response to the comments, the Commission has revised significantly its burden estimates, as detailed below. In particular, it has added estimated capital costs associated with package and product label design changes and has increased the time estimate for manufacturers to add the new disclosures to their product packaging and labeling.

Package and Product Labeling: The amendments require manufacturers to change their package and product labeling to include new disclosures. The new requirements will require a one-time adjustment for manufacturers. The Commission estimates that there are 50 manufacturers making approximately 6,000 covered products.¹⁴⁵ This adjustment will require an estimated 100 hours per manufacturer.¹⁴⁶ Annualized for a single year reflective of a prospective

reporting requirements, have previously been accounted for in past FTC analyses under the Rule and are covered by the current PRA clearance from OMB.

¹⁴⁵ Based on a review of ENERGY STAR data for products covered under that program, the Commission now estimates that there are 6,000 basic models covered by the Rule. This is an increase from the FTC's prior estimate of 2,100 basic models. *See* 74 FR at 57963.

¹⁴⁶ The Commission has increased its estimate of the hours required to make this change from 80 hours per manufacturer, as stated in the NPRM, to 100 hours per manufacturer. This change was made in response to comments from industry members or their representatives that the Commission's burden estimates were too low.

3-year PRA clearance, this averages to 33 hours per year. Thus, the label design change will result in cumulative burden of 1,650 hours (50 manufacturers x 33 hours). In estimating the associated labor cost, the Commission assumes that the label design change will be implemented by graphic designers at an hourly wage rate of \$22.70 per hour based on Bureau of Labor Statistics information.¹⁴⁷ Thus, the Commission estimates labor cost for this adjustment will total \$37,455 (1,650 hours x \$22.70 per hour).

The Commission estimates that the one-time capital cost of changing lightbulb package and product labeling will be \$6,540,000, determined as follows. Using the cost estimates suggested by Vranich, the estimate for the one-time capital cost of the package label change is \$5,340,000. This estimate is based on the assumptions that manufacturers will have to change 4,000 of the total 6,000 model packages due to the new requirements¹⁴⁸ and that package label changes for each product will cost \$1,335.¹⁴⁹ As for product labeling, no commenter provided specific estimates for the cost involved. Manufacturers place information on products in the normal course of business. In the absence of cost data, the Commission assumes that the one-time labeling change will cost \$200 per model for an estimated total of \$1,200,000 (6,000

¹⁴⁷ See http://www.bls.gov/ncs/ncswage2008.htm#Wage_Tables (National Compensation Survey: Occupational Earnings in the United States 2008, U.S. Department of Labor (August 2009), Bulletin 2720, Table 3 (“Full-time civilian workers,” mean and median hourly wages), at 3-12).

¹⁴⁸ Over the course of a year, manufacturers are likely to change approximately 1/3 of their labels during the normal course of business. The one year compliance period and the notice provided by this proceeding should minimize the likelihood that manufacturers will have to discard package inventory. See, e.g., FDA Labeling Cost Model at 4-3. In addition, manufacturers may use stickers in lieu of discarding inventory.

¹⁴⁹ See Vranich comment.

models x \$200). Annualized in the context of a 3-year PRA clearance, these non-labor costs would average \$2,180,000.

Color Temperature: Although the Commission expects that many manufacturers already conduct testing for correlated color temperature in the normal course of business (e.g., to meet ENERGY STAR criteria), the final amendments may require manufacturers to conduct additional testing. The Commission assumes that manufacturers will have to test about half of the basic models (or 3,000 basic models) at 0.5 hours for each model for a total of 1,500 hours.¹⁵⁰ In calculating the associated labor cost estimate, the Commission assumes that this work will be implemented by electrical engineers at an hourly wage rate of \$39.79 per hour based on Bureau of Labor Statistics information.¹⁵¹ Thus, the Commission estimates that the new label design change will result in associated labor costs of approximately \$59,685 (1,500 hours x \$39.79 per hour). The Commission does not expect that the final amendments will create any capital or other non-labor costs for such testing.

Accordingly, the revised estimated total hour burden of the amendments is 3,150 hours (1,650 hours for packaging and labeling + 1,500 hours for additional testing for correlated color temperature) with associated labor costs of \$97,140 and annualized capital or other non-labor costs totaling \$2,180,000.¹⁵²

¹⁵⁰ The Commission assumes conservatively that manufacturers will conduct new testing for 3,000 out of the 6,000 estimated covered products.

¹⁵¹ See http://www.bls.gov/ncs/ncswage2008.htm#Wage_Tables (National Compensation Survey: Occupational Earnings in the United States 2008, U.S. Department of Labor (August 2009), Bulletin 2720, Table 3 (“Full-time civilian workers,” mean and median hourly wages), at 3-4).

¹⁵² The estimates included in the NPRM were 2,384 hours, \$72,062 (labor costs), and \$0 (capital costs). See 74 FR at 57963.

IX. Regulatory Flexibility Act

The Regulatory Flexibility Act (“RFA”), 5 U.S.C. 601-612, requires that the Commission provide an Initial Regulatory Flexibility Analysis (“IRFA”) with a proposed rule and a Final Regulatory Flexibility Analysis (“FRFA”), if any, with the final rule, unless the Commission certifies that the Rule will not have a significant economic impact on a substantial number of small entities.¹⁵³

The Commission recognizes that some of the affected manufacturers may qualify as small businesses under the relevant thresholds. However, the Commission does not expect that the economic impact of the proposed amendments will be significant. In any event, to minimize any burden, the Commission plans to provide manufacturers with ample time to implement the proposed changes. The Commission estimates that these new requirements will apply to about 50 product manufacturers and an additional 150 online and paper catalog sellers of covered products. The Commission expects that approximately 150 of these entities qualify as small businesses.

The Commission does not anticipate that the amendments will have a significant economic impact on a substantial number of small entities. Although the Commission certified under the RFA that the amendments would not, if promulgated, have a significant impact on a substantial number of small entities, the Commission has determined, nonetheless, that it is appropriate to publish an FRFA in order to explain the impact of the amendments on small entities as follows:

¹⁵³ See 5 U.S.C. 603-605.

A. Statement of the Need for, and Objectives of, the Amendments

Section 321(b) of EISA requires the Commission to conduct a rulemaking to consider the effectiveness of the lamp labeling and to consider alternative labeling approaches. The objective of the rulemaking is to improve the effectiveness of the current lamp labeling program. EISA directs the Commission to consider whether alternative labeling approaches would help consumers better understand new high efficiency lamp products and help them choose lamps that meet their needs. In particular, the law directs the Commission to consider labeling disclosures that address consumer needs for information about lighting level, light quality, lamp lifetime, and total lifecycle cost.

B. Issues Raised by Comments in Response to the IRFA

The Commission did not receive any comments specifically related to the impact of the proposed amendments on small business. Sections V.A., V.B.2.f, V.C.1, V.C.2, and V.H discuss general comments related to the regulatory burden of the final amendments.

C. Estimate of Number of Small Entities to Which the Amendments Will Apply

Under the Small Business Size Standards issued by the Small Business Administration, lamp manufacturers qualify as small businesses if they have fewer than 1,000 employees (for other household appliances the figure is 500 employees). Lamp catalog sellers qualify as small businesses if their sales are less than \$8.0 million annually. The Commission estimates that there are approximately 150 entities subject to the amended requirements that qualify as small businesses.

D. Projected Reporting, Recordkeeping, and Other Compliance Requirements

The Commission recognizes that the amended labeling requirements will involve some increased drafting costs and reporting requirements for affected entities. As discussed above, the

increased reporting burden should be *de minimis*. The transition to the use of a new label design should represent a one-time cost discussed in section VIII. Such requirements should not impose a significant burden on small entities. In addition, these burdens are discussed in section VIII, and there should be no difference in that burden as applied to small businesses. Finally, as discussed in section VIII, the changes are likely to be implemented by graphic designers (for label changes) and electrical engineers (for testing requirements and data reports). There should be no additional burden on catalog sellers beyond those already imposed by the Rule.

E. Alternatives

The Commission sought comment and information on the need, if any, for alternative compliance methods that, consistent with the statutory requirements, would reduce the economic impact of the amendments on small entities. As discussed in section V.H, the Commission is setting a one-year compliance period to reduce the burden associated with implementing the labels and other disclosures required by the final amendments. In addition, the Commission has reduced the size of the required labels and provided an alternative label for small packages.

In addition, the Commission routinely allows manufacturers to report required data through electronic means. However, the final amendments do not allow package and product disclosures in electronic format because such disclosures would not help consumers with their purchasing decisions for bulbs, which are typically displayed in brick-and-mortar stores.

X. Final Rule Language

List of Subjects in 16 CFR Part 305

Advertising, Energy conservation, Household appliances, Labeling, Reporting and recordkeeping requirements.

For the reasons set forth above, the Federal Trade Commission amends part 305 of title 16, Code of Federal Regulations, as follows:

PART 305 - RULE CONCERNING DISCLOSURES REGARDING ENERGY CONSUMPTION AND WATER USE OF CERTAIN HOME APPLIANCES AND OTHER PRODUCTS REQUIRED UNDER THE ENERGY POLICY AND CONSERVATION ACT (“APPLIANCE LABELING RULE”)

1. The authority citation for Part 305 continues to read as follows:

AUTHORITY: 42 U.S.C. 6294.

2. In § 305.3, paragraphs (l) and (m) are revised, paragraphs (n), (o), (p), (q), (r), (s), and (t) are redesignated as (r), (s), (t), (u), (v), (w), and (x) respectively, and new paragraphs (n), (o), (p), and (q) are added to read as follows:

§ 305.3 Description of covered products.

* * * * *

(l) *General service lamp* means:

(1) A lamp that is:

(i) A medium base compact fluorescent lamp;

(ii) A general service incandescent lamp;

(iii) A general service light-emitting diode (LED or OLED) lamp; or

(iv) Any other lamp that the Secretary of Energy determines is used to satisfy lighting applications traditionally served by general service incandescent lamps.

(2) Exclusions. The term *general service lamp* does not include—

(i) Any lighting application or bulb shape described in paragraphs (n)(3)(ii)(A) through (T) of this section; and

(ii) Any general service fluorescent lamp.

(m) *Medium base compact fluorescent lamp* means an integrally ballasted fluorescent lamp with a medium screw base, a rated input voltage range of 115 to 130 volts and which is designed as a direct replacement for a general service incandescent lamp; however, the term does not include—

(1) Any lamp that is—

(i) Specifically designed to be used for special purpose applications; and

(ii) Unlikely to be used in general purpose applications, such as the applications described in the definition of “General Service Incandescent Lamp” in paragraph (n)(3)(ii) of this section; or

(2) Any lamp not described in the definition of “General Service Incandescent Lamp” in this section and that is excluded by the Department of Energy, by rule, because the lamp is—

(i) Designed for special applications; and

(ii) Unlikely to be used in general purpose applications.

(n) *Incandescent lamp*:

(1) Means a lamp in which light is produced by a filament heated to incandescence by an electric current, including only the following:

(i) Any lamp (commonly referred to as lower wattage nonreflector general service lamps, including any tungsten-halogen lamp) that has a rated wattage between 30 and 199 watts, has an E26 medium screw base, has a rated voltage or voltage range that lies at least partially within 115 and 130 volts, and is not a reflector lamp;

(ii) Any lamp (commonly referred to as a reflector lamp) which is not colored or designed for rough or vibration service applications, that contains an inner reflective coating on the outer bulb to direct the light, an R, PAR, ER, BR, BPAR, or similar bulb shapes with E26 medium screw

bases, a rated voltage or voltage range that lies at least partially within 115 and 130 volts, a diameter which exceeds 2.75 inches, and has a rated wattage that is 40 watts or higher;

(iii) Any general service incandescent lamp (commonly referred to as a high- or higher-wattage lamp) that has a rated wattage above 199 watts (above 205 watts for a high wattage reflector lamp); but

(2) *Incandescent lamp* does not mean any lamp excluded by the Secretary of Energy, by rule, as a result of a determination that standards for such lamp would not result in significant energy savings because such lamp is designed for special applications or has special characteristics not available in reasonably substitutable lamp types;

(3) *General service incandescent lamp* means

(i) In general, a standard incandescent, halogen, or reflector type lamp that—

(A) Is intended for general service applications;

(B) Has a medium screw base;

(C) Has a lumen range of not less than 310 lumens and not more than 2,600 lumens; and

(D) Is capable of being operated at a voltage range at least partially within 110 and 130 volts.

(ii) *Exclusions*. The term “general service incandescent lamp” does not include the following incandescent lamps:

(A) An appliance lamp as defined at 42 U.S.C. 6291(30);

(B) A black light lamp;

(C) A bug lamp;

(D) A colored lamp as defined at 42 U.S.C. 6291(30);

(E) An infrared lamp;

(F) A left-hand thread lamp;

- (G) A marine lamp;
 - (H) A marine signal service lamp;
 - (I) A mine service lamp;
 - (J) A plant light lamp;
 - (K) A rough service lamp as defined at 42 U.S.C. 6291(30);
 - (L) A shatter-resistant lamp (including a shatter-proof lamp and a shatter-protected lamp);
 - (M) A sign service lamp;
 - (N) A silver bowl lamp;
 - (O) A showcase lamp;
 - (P) A traffic signal lamp;
 - (Q) A vibration service lamp as defined at 42 U.S.C. 6291(30);
 - (R) A G shape lamp (as defined in ANSI C78.20–2003 and C79.1–2002) with a diameter of 5 inches or more;
 - (S) A T shape lamp (as defined in ANSI C78.20–2003 and C79.1–2002) and that uses not more than 40 watts or has a length of more than 10 inches; or
 - (T) 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 C78.20–2003) of 40 watts or less.
- (4) *Incandescent reflector lamp* means a lamp described in paragraph (n)(1)(ii) of this section; and
- (5) *Tungsten-halogen lamp* means a gas-filled tungsten filament incandescent lamp containing a certain proportion of halogens in an inert gas.

(o) *Light-emitting diode (LED)* means a p-n junction solid state device the radiated output of which is a function of the physical construction, material used, and exciting current of the device. The output of a light-emitting diode may be in—

- (1) The infrared region;
- (2) The visible region; or
- (3) The ultraviolet region.

(p) *Organic light-emitting diode (OLED)* means a thin-film light-emitting device that typically consists of a series of organic layers between 2 electrical contacts (electrodes).

(q) *General service light-emitting diode (LED or OLED) lamp* means any light-emitting diode (LED or OLED) lamp that:

- (1) Is a consumer product;
- (2) Is intended for general service applications;
- (3) Has a medium screw base;
- (4) Has a lumen range of not less than 310 lumens and not more than 2,600 lumens; and
- (5) Is capable of being operated at a voltage range at least partially within 110 and 130 volts.

* * * * *

- 3. In § 305.5, paragraphs (a)(12), (13), and (14) are added and paragraph (b) is revised to read as follows:

Testing

§ 305.5 Determinations of estimated annual energy consumption, estimated annual operating cost, and energy efficiency rating, and of water use rate.

(a) * * *

(12) General Service Incandescent Lamps – § 430.23(r).

(13) General Service Fluorescent Lamps – § 430.23(r).

(14) Medium Base Compact Fluorescent Lamps – § 430.23(y).

(b) Unless otherwise provided in paragraph (a) of this section or § 305.8, manufacturers and private labelers of any covered product that is a general service fluorescent lamp, general service lamp, or metal halide lamp fixture, must, for any representation required by this Part including but not limited to of the design voltage, wattage, energy cost, light output, life, correlated color temperature, or color rendering index of such lamp or for any representation made by the encircled “E” that such a lamp is in compliance with an applicable standard established by section 325 of the Act, possess and rely upon a reasonable basis consisting of competent and reliable scientific tests substantiating the representation. For representations of the light output and life ratings of any covered product that is a general service lamp, unless otherwise provided by paragraph (a), the Commission will accept as a reasonable basis scientific tests conducted according to the following applicable IES test protocols that substantiate the representations:

For measuring light output (in lumens):	
General Service Fluorescent	IES LM 9
Compact Fluorescent	IES LM 66
General Service Incandescent (Other than Reflector Lamps)	IES LM 45
General Service Incandescent (Reflector Lamps)	IES LM 20
General Service Light-emitting Diode (LED or OLED) lamps	IES LM 79
For measuring laboratory life (in hours):	
General Service Fluorescent	IES LM 40
Compact Fluorescent	IES LM 65
General Service Incandescent (Other than Reflector Lamps)	IES LM 49
General Service Incandescent (Reflector Lamps)	IES LM 49

* * * * *

4. Section 305.6 is revised to read as follows:

§ 305.6 Sampling.

(a) For any covered product (except general service fluorescent lamps or general service lamps), any representation with respect to or based upon a measure or measures of energy consumption incorporated into § 305.5 shall be based upon the sampling procedures set forth in § 430.24 of 10 CFR part 430, subpart B.

(b) For any covered product that is a general service lamp, any representation required by § 305.15 and, for any covered product that is a general service fluorescent lamp or incandescent reflector lamp, any representation made by the encircled “E” that such lamp is in compliance with an applicable standard established by section 325 of the Act, shall be based upon tests using a competent and reliable scientific sampling procedure. The Commission will accept “Military Standard 105—Sampling Procedures and Tables for Inspection by Attributes” as such a sampling procedure.

5. Section 305.8 is amended as follows:

- a. In paragraph (a)(1), remove the phrase “medium base compact fluorescent lamps or general service incandescent lamps including, incandescent reflector lamps” and add in its place “and general service lamps.”
- b. Revise paragraph (a)(3)(v) and add paragraphs (a)(3)(vi) through (viii) to read as follows:

§ 305.8 Submission of data.

- (a) * * *
- (3) * * *

(v) For all covered lamps, the test results based on 10 CFR § 430.23 for the lamp's wattage and light output ratings.

(vi) For all covered general service fluorescent lamps, the test results based on 10 CFR § 430.23 for the lamp's color rendering index and correlated color temperature.

(vii) For all covered incandescent lamps, the test results based on 10 CFR § 430.23 for the lamp's correlated color temperature.

(viii) For all covered compact fluorescent lamps, the test results based on 10 CFR § 430.23 for the lamp's life.

* * * * *

- c. Revise paragraph (b)(1) by removing the term “[Stayed]” wherever it appears, and by replacing the phrase “Incandescent Lamps, incl. Reflector Lamps” with the phrase “General Service Incandescent Lamps.”

6. Section 305.15 is amended as follows:

- a. Paragraph (c) is redesignated as paragraph (f).
- b. Paragraph (b) is revised and new paragraphs (c), (d), and (e) are added to read as follows:

§ 305.15 Labeling for lighting products.

* * * * *

(b) *General service lamps* – Except as provided in paragraph (c), any covered product that is a general service lamp shall be labeled as follows:

(1) *Principal display panel content*: The principal display panel of the product package shall be labeled clearly and conspicuously with the following information:

(i) The light output of each lamp included in the package, expressed as “Brightness” in average initial lumens rounded to the nearest five; and

(ii) The estimated annual energy cost of each lamp included in the package, expressed as “Estimated Energy Cost” in dollars and based on usage of 3 hours per day and 11 cents (\$0.11) per kWh.

(2) *Principal display panel format:* The light output (brightness) and energy cost shall appear in that order and with equal clarity and conspicuousness on the principal display panel of the product package. The format, terms, specifications, and minimum sizes shall follow the specifications and minimum sizes displayed in Prototype Label 5 in Appendix L.

(3) *Lighting Facts label content:* The side or rear display panel of the product package shall be labeled clearly and conspicuously with a Lighting Facts label that contains the following information in the following order:

(i) The light output of each lamp included in the package, expressed as “Brightness” in average initial lumens rounded to the nearest five;

(ii) The estimated annual energy cost of each lamp included in the package based on the average initial wattage, a usage rate of 3 hours per day and 11 cents (\$0.11) per kWh and explanatory text as illustrated in Prototype Label 6 in Appendix L;

(iii) The life, as defined in § 305.2(w), of each lamp included in the package, expressed in years rounded to the nearest tenth (based on 3 hours operation per day);

(iv) The correlated color temperature of each lamp included in the package, as measured in degrees Kelvin and expressed as “Light Appearance” and by a number and a marker in the form of a scale as illustrated in Prototype Label 6 to Appendix L placed proportionately on the scale where the left end equals 2,600 K and the right end equals 6,600 K;

(v) The wattage, as defined in § 305.2(hh), for each lamp included in the package, expressed as energy used in average initial wattage;

(vi) The ENERGY STAR logo as illustrated in Prototype Label 6 to Appendix L for qualified products, if desired by the manufacturer. Only manufacturers that have signed a Memorandum of Understanding with the Department of Energy or the Environmental Protection Agency may add the ENERGY STAR logo to labels on qualifying covered products; such manufacturers may add the ENERGY STAR logo to labels only on those products that are covered by the Memorandum of Understanding;

(vii) The design voltage of each lamp included in the package, if other than 120 volts;

(viii) For any general service lamp containing mercury, the following statement:

“Contains Mercury For more on clean up and safe disposal, visit epa.gov/cfl.”

The manufacturer may also print an “Hg[Encircled]” symbol on the label after the term

“Contains Mercury”; and

(ix) No marks or information other than that specified in this part shall appear on the Lighting Facts label.

(4) *Standard Lighting Facts label format:* Except as provided in paragraph (b)(5), information specified in paragraph (b)(3) shall be presented on covered lamp packages in the format, terms, explanatory text, specifications, and minimum sizes as shown in Prototype Labels 6 in Appendix L and consistent in format and orientation with Sample Labels 10, 11, or 12 in Appendix L. The text and lines shall be all black or one color type, printed on a white or other neutral contrasting background whenever practical.

(i) The Lighting Facts information shall be set off in a box by use of hairlines and shall be all black or one color type, printed on a white or other neutral contrasting background whenever practical.

(ii) All information within the Lighting Facts label shall utilize:

(A) Arial or an equivalent type style;

(B) Upper and lower case letters;

(C) Leading as indicated in Prototype Label 6 in Appendix L;

(D) Letters that never touch;

(E) The box and hairlines separating information as illustrated in Prototype Labels 6 in Appendix L; and

(F) The minimum font sizes and line thicknesses as illustrated in Prototype Label 6 in Appendix L.

(5) *Lighting Facts format for small packages.* If the total surface area of the product package available for labeling is less than 24 square inches and the package shape or size cannot accommodate the standard label required by paragraph (b)(4), manufacturers may provide the information specified in paragraph (b)(3) using a smaller, linear label following the format, terms, explanatory text, specifications, and minimum sizes illustrated in Prototype Label 7 in Appendix L.

(6) *Bilingual labels.* The information required by paragraphs (b)(1) through (5) of this section may be presented in a second language either by using separate labels for each language or in a bilingual label with the English text in the format required by this section immediately followed by the text in the second language. Sample Label 13 in Appendix L provides an example of a

bilingual Lighting Facts label. All required information must be included in both languages. Numeric characters that are identical in both languages need not be repeated.

(7) *Product Labeling.* Any general service lamp shall be labeled legibly on the product with the following information:

- (i) The lamp's average initial lumens, expressed as a number rounded to the nearest five, adjacent to the word "lumens," both provided in minimum 8 point font; and
- (ii) For general service lamps containing mercury, the following statement: "Mercury disposal: epa.gov/cfl" in minimum 8 point font.

(c)(1) Any covered incandescent lamp that is subject to and does not comply with the January 1, 2012 efficiency standards specified in 42 U.S.C. 6295 shall be labeled clearly and conspicuously on the principal display panel of product package with the following information in lieu of the labeling requirements specified in paragraph (b):

- (i) The number of lamps included in the package, if more than one;
- (ii) The design voltage of each lamp included in the package, if other than 120 volts;
- (iii) The light output of each lamp included in the package, expressed in average initial lumens;
- (iv) The electrical power consumed (energy used) by each lamp included in the package, expressed in average initial wattage; and
- (v) The life of each lamp included in the package, expressed in hours.

(2) The light output, energy usage and life ratings of any product covered by paragraph (c)(1) of this section shall appear in that order and with equal clarity and conspicuousness on the product's principal display panel. The light output, energy usage and life ratings shall be disclosed in terms of "lumens," "watts," and "hours" respectively, with the lumens, watts, and hours rating numbers each appearing in the same type style and size and with the words

“lumens,” “watts,” and “hours” each appearing in the same type style and size. The words “light output,” “energy used,” and “life” shall precede and have the same conspicuousness as both the rating numbers and the words “lumens,” “watts,” and “hours,” except that the letters of the words “lumens,” “watts,” and “hours” shall be approximately 50% of the sizes of those used for the words “light output,” “energy used,” and “life,” respectively.

(d)(1) The required disclosures of any covered product that is a general service lamp shall be measured at 120 volts, regardless of the lamp’s design voltage. If a lamp’s design voltage is 125 volts or 130 volts, the disclosures of the wattage, light output, energy cost, and life ratings shall in each instance be:

(i) At 120 volts and followed by the phrase “at 120 volts.” In such case, the labels for such lamps also may disclose the lamp’s wattage, light output, energy cost, and life at the design voltage (*e.g.*, “Light Output 1710 Lumens at 125 volts”); or

(ii) At the design voltage and followed by the phrase “at (125 volts/130 volts)” if the ratings at 120 volts are disclosed clearly and conspicuously on another panel of the package, and if all panels of the package that contain a claimed light output, energy cost, wattage or life clearly and conspicuously identify the lamp as “(125 volt/130 volt),” and if the principal display panel clearly and conspicuously discloses the following statement:

This product is designed for (125/130) volts. When used on the normal line voltage of 120 volts, the light output and energy efficiency are noticeably reduced. See (side/back) panel for 120 volt ratings.

(2) For any covered product that is an incandescent reflector lamp, the required disclosures of light output shall be given for the lamp’s total forward lumens.

(3) For any covered product that is a compact fluorescent lamp, the required light output disclosure shall be measured at a base-up position; but, if the manufacturer or private labeler has reason to believe that the light output at a base-down position would be more than 5% different, the label also shall disclose the light output at the base-down position or, if no test data for the base-down position exist, the fact that at a base-down position the light output might be more than 5% less.

(4) For any covered product that is a general service incandescent lamp and operates with multiple filaments, the light output, energy cost, and wattage disclosures required by this section must be provided at each of the lamp's levels of light output and the lamp's life provided on the basis of the filament that fails first. The multiple numbers shall be separated by a "/" (*e.g.*, 800/1600/2500 lumens).

(5) A manufacturer or private labeler who distributes general service fluorescent lamps or general service lamps without labels attached to the lamps or without labels on individual retail-sale packaging for one or more lamps may meet the package disclosure requirements of this section by making the required disclosures, in the manner and form required by those paragraphs, on the bulk shipping cartons that are to be used to display the lamps for retail sale.

(6) Any manufacturer or private labeler who makes any representation, other than those required by this section, on a package of any covered product that is a general service fluorescent lamp or general service lamp regarding the cost of operation or life of such lamp shall clearly and conspicuously disclose in close proximity to such representation the assumptions upon which it is based, including, *e.g.*, purchase price, unit cost of electricity, hours of use, patterns of use. If those assumptions differ from those required for the cost and life information on the Lighting Facts label (11 cents per kWh and 3 hours per day), the manufacturer or private labeler must also

disclose, with equal clarity and conspicuousness and in close proximity to, the same representation based on the assumptions for cost and life required on the Lighting Facts label.

(e)(1) Any covered product that is a general service fluorescent lamp or an incandescent reflector lamp shall be labeled clearly and conspicuously with a capital letter “E” printed within a circle and followed by an asterisk. The label shall also clearly and conspicuously disclose, either in close proximity to that asterisk or elsewhere on the label, the following statement:

*[The encircled “E”] means this bulb meets Federal minimum efficiency standards.

(i) If the statement is not disclosed on the principal display panel, the asterisk shall be followed by the following statement:

See [Back,Top, Side] panel for details.

(ii) For purposes of this paragraph, the encircled capital letter “E” shall be clearly and conspicuously disclosed in color-contrasting ink on the label of any covered product that is a general service fluorescent lamp and will be deemed “conspicuous,” in terms of size, if it appears in typeface at least as large as either the manufacturer's name or logo or another logo disclosed on the label, such as the “UL” or “ETL” logos, whichever is larger.

(2) Instead of labeling any covered product that is a general service fluorescent lamp with the encircled “E” and with the statement described in paragraph (e)(1) of this section, a manufacturer or private labeler who would not otherwise put a label on such a lamp may meet the disclosure requirements of that paragraph by permanently marking the lamp clearly and conspicuously with the encircled “E.”

(3) Any cartons in which any covered products that are general service fluorescent lamps and general service lamps are shipped within the United States or imported into the United States shall disclose clearly and conspicuously the following statement:

These lamps comply with Federal energy efficiency labeling requirements.

* * * * *

7. In § 305.19, remove the phrase “medium base compact fluorescent lamps, or general service incandescent lamps including incandescent reflector lamps” and add in its place “general service lamps” wherever it appears.
8. Section 305.20 is amended as follows:
 - a. In paragraph (a)(1), remove the phrase “medium base compact fluorescent lamps, general service incandescent lamps including incandescent reflector lamps” and add in its place “general service lamps” wherever it appears;
 - b. In paragraph (a)(3), remove the phrase “medium base compact fluorescent lamp, or general service incandescent lamp (including an incandescent reflector lamp)” and add in its place “general service lamps” wherever it appears;
 - c. Revise paragraph (c)(1) to read as follows:

§ 305.20 Paper catalogs and websites.

* * * * *

(c)(1) Any manufacturer, distributor, retailer, or private labeler who advertises in a catalog a covered product that is a general service fluorescent lamp or general service lamp shall disclose clearly and conspicuously in such catalog:

(i) On each page listing any covered product that is a general service lamp, all the information concerning that lamp required by § 305.15 of this part to be disclosed on the lamp’s package labeling either in the form of the manufacturer’s Lighting Facts label prepared pursuant to § 305.15 or otherwise in a clear and conspicuous manner. For the “Light Appearance”

disclosure required by § 305.15(b)(3)(iv), the catalog need only disclose the lamp's correlated color temperature in Kelvin (*e.g.*, 2700 K); and

(ii) On each page listing a covered product that is a general service fluorescent lamp or an incandescent reflector lamp, all the information required by § 305.15 of this part to be disclosed on the lamp's package labeling according to the following format:

(A) The encircled "E" shall appear with each lamp entry; and

(B) The accompanying statement described in § 305.15(d)(1) shall appear at least once on the page.

* * *

9. In § 305.21, revise paragraph (b) to read as follows:

§ 305.21 Test data records.

* * * * *

(b) Upon notification by the Commission or its designated representative, a manufacturer or private labeler shall provide, within 30 days of the date of such request, the underlying test data from which the water use or energy consumption rate, the energy efficiency rating, the estimated annual cost of using each basic model, or the light output, energy usage, correlated color temperature, and life ratings and, for fluorescent lamps, the color rendering index, for each basic model or lamp type were derived.

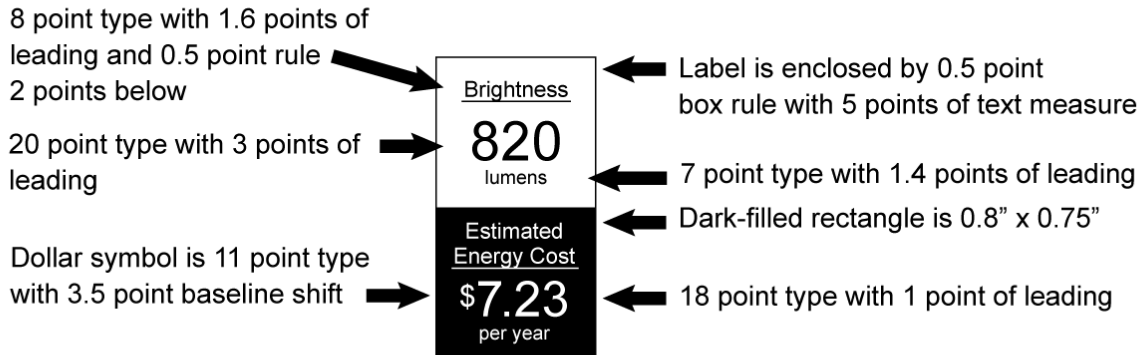
10. Amend Appendix L as follows:

a. Add Prototype Labels 5, 6, and 7 after Prototype Label 4 to read as follows:

Appendix L to Part 305 – Sample Labels Appendix L to Part 305 – Sample Labels

* * * * *

* Typeface is Arial or equivalent type style. Type is black or one color printed on a white or other neutral contrasting background.



* Minimum size for vertical label is 0.8" x 1.5". Scale label and all text proportionally.



* Minimum size for vertical label is 1.6" x 0.75". Scale label and all text proportionally.

PROTOTYPE LABEL 5

FRONT PACKAGE DISCLOSURE FOR GENERAL SERVICE LAMPS

All text enclosed by
hairline rule box within
3 points of text measure

Flush left, no smaller than
13 point, bold type

8 point bold type with
4 points of leading

7 point type with
2 points of leading

7 point type

10 point bold type with
4 points of leading

10 point type with
1 point of leading

Lighting Facts Per Bulb

Brightness 870 lumens

Estimated Yearly Energy Cost \$1.57
Based on 3 hrs/day, 11¢/kWh
Cost depends on rates and use

Life
Based on 3 hrs/day 5.5 years

Light Appearance
Warm ————— Cool
2700 K

Energy Used 13 watts

Contains Mercury
For more on clean up and safe
disposal, visit epa.gov/cfl.

7 point type

bar centered between lines of text

hairline rule centered
between lines of text

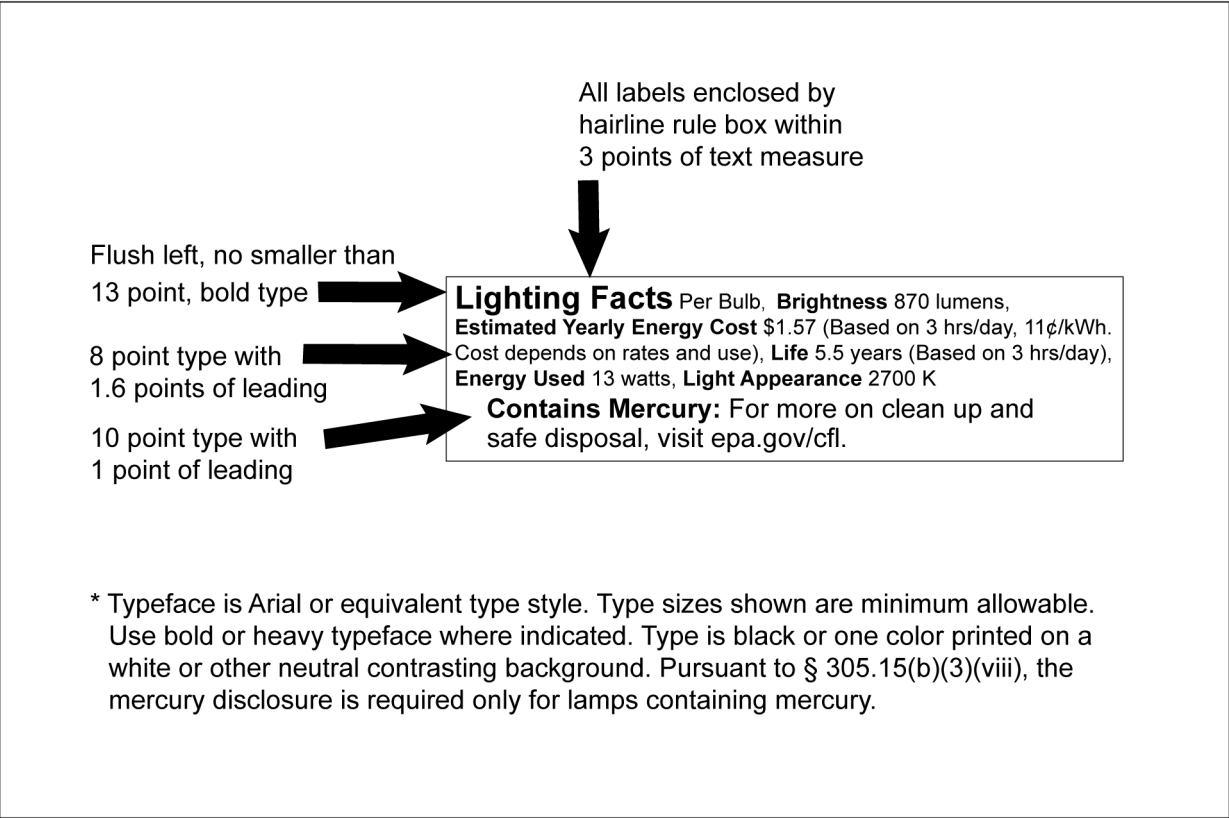
Suggested location of
Energy Star. Logo must
be at least 27 points wide.

Light Appearance Scale
2 point rule with 1 point
vertical marks at left, right
and center. Scale is 2/3
width of label. 6 point
isosceles triangle with
0.5 point white stroke,
placed appropriately on
scale.

* Typeface is Arial or equivalent type style. Type sizes shown are minimum allowable. Use bold or heavy typeface where indicated. Type is black or one color printed on a white or other neutral contrasting background. Pursuant to § 305.15(b)(3)(vi), the Energy Star logo may appear only on qualified lamps. Pursuant to § 305.15(b)(3)(viii), the mercury disclosure is required only for lamps containing mercury.

PROTOTYPE LABEL 6

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMPS (STANDARD
FORMAT)**



PROTOTYPE LABEL 7

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMPS CONTAINING
MERCURY (LINEAR FORMAT)**

* * * * *

- b. Remove all sections labeled Lamp Packaging Disclosures; and
- c. Add Sample Labels 10, 11, 12, and 13 after Sample Label 9 as follows:


Appendix L to Part 305 – Sample Labels

* * * * *

Lighting Facts Per Bulb	
Brightness	820 lumens
Estimated Yearly Energy Cost	\$7.23
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use	
Life	
Based on 3 hrs/day	1.4 years
Light Appearance	
Warm	Cool
Energy Used	60 watts



SAMPLE LABEL 10

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMP NOT CONTAINING
MERCURY**

Lighting Facts Per Bulb		Light Appearance
Brightness	870 lumens	Warm ————— Cool ▲ 2700 K
Estimated Yearly Energy Cost	\$1.57	 Contains Mercury For more on clean up and safe disposal, visit epa.gov/cfl .
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use		
Life Based on 3 hrs/day	5.5 years	
Energy Used	13 watts	


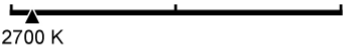
SAMPLE LABEL 11

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMP CONTAINING
MERCURY (WIDE ORIENTATION)**

Lighting Facts	
Per Bulb	
Brightness	870 lumens
Estimated Yearly Energy Cost	\$1.57
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use.	
	
Life	5.5 years
Based on 3 hrs/day	
Light Appearance	
Warm Cool	
	
2700 K	
Energy Used	13 watts
Contains Mercury	
For more on clean up and safe disposal, visit epa.gov/cfl .	

SAMPLE LABEL 12

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMP CONTAINING
MERCURY (TALL ORIENTATION)**

Lighting Facts/Datos de Iluminación	
Per Bulb/Por Bombilla	
Brightness/Brillo	870 lumens/lúmenes
Estimated Yearly Energy Cost/ Costo Anual Estimado	\$1.57
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use./Basado en 3 hrs/día, 11¢/kWh. Costo depende del índice y uso.	
	
Life/Duración	5.5 years/años
Based on 3 hrs/day/Basado en 3 hrs/día	
Light Appearance/Apariencia de Iluminación	
Warm/Cálido Cool/Frío	
	
Energy Used/Usó de Energía	13 watts/vatios
Contains Mercury/Contiene Mercurio	
For more on clean up and safe disposal, visit epa.gov/cfl . Para más sobre limpieza y eliminación segura, visite epa.gov/cfl .	

SAMPLE LABEL 13

**LIGHTING FACTS LABEL FOR GENERAL SERVICE LAMP CONTAINING
MERCURY (BILINGUAL EXAMPLE)**

* * * * *

By direction of the Commission.

Donald S. Clark
Secretary