

# Proposed Rules

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

## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 20

RIN 3150-AF44

#### Reporting Requirements for Unauthorized Use of Licensed Radioactive Material: Extension of Comment Period

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Proposed rule: Extension of comment period.

**SUMMARY:** On January 31, 1996, (61 FR 3334), the NRC published for public comment a proposed rule to add a new requirement for licensees to notify the NRC Operations Center within 24 hours of discovering an intentional or allegedly intentional diversion of licensed radioactive material from its intended or authorized use. The proposed rule would also require licensees to notify the NRC when they are unable, within 48 hours of discovery of the event, to rule out that the use was intentional. The proposed rule would require reporting of events that cause, or have the potential to cause, an exposure of individuals whether or not the exposure exceeds the regulatory limits. The comment period for the proposed rule was to have expired on March 1, 1996. The American College of Nuclear Physicians/Society of Nuclear Medicine (ACNP/SNM) has requested a 60-day extension of the comment period. In addition, a second comment letter from an individual was received requesting that the NRC extend the comment period. The second letter pointed out the one-week after publication time lag involved with obtaining the Federal Register and the additional time lag involved with mailing a comment letter to the NRC. In view of the importance of the proposed rule and the desire to provide an adequate opportunity for public comment while developing a final rule as soon as practicable, the NRC has decided to extend the

comment period for an additional 30 days. The comment period now ends on March 31, 1996.

**DATES:** The comment period has been extended and now expires March 31, 1996. Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only for comments received on or before this date.

**ADDRESSES:** Send written comments or suggestions to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Docketing and Service Branch. Copies of comments received may be examined on the NRC Rulemaking Bulletin Board at FedWorld and the NRC Public Document Room, 2120 L Street, NW, (Lower Level), Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Mary L. Thomas, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, telephone (301) 415-6230, e-mail MLT1@NRC.GOV.

Dated at Rockville, Maryland, this 21st day of February 1996.

For the Nuclear Regulatory Commission.  
James M. Taylor,

*Executive Director for Operations.*

[FR Doc. 96-4485 Filed 2-27-96; 8:45 am]

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## DEPARTMENT OF ENERGY

### Office of Energy Efficiency and Renewable Energy

#### 10 CFR Part 430

[Docket No. EE-RM-94-220-IF]

RIN 1904-AA61; RIN 1904-AA70

#### Energy Conservation Standards Program for Consumer Products: Test Procedures for Fluorescent and Incandescent Lamps

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

**ACTION:** Notice reopening comment period.

**SUMMARY:** On September 28, 1994, the Department of Energy (Department or DOE) published an interim final rule and a proposed rule regarding energy conservation test procedures for fluorescent and incandescent lamps.

Based on the public responses, the Department is considering certain revisions of the interim final rule and proposed rule and seeks public comment on options it is considering. The options involve the following topics: determining the wattage of a fluorescent lamp for purposes deciding whether the energy conservation standards and test procedures apply to it; the confidence limit, "derating factor" and statistical test used in the test procedure sampling plan; definition of colored lamps; determining the rated voltage or rated voltage range of an incandescent lamp for purposes of deciding whether the energy conservation standards and test procedures apply to it; defining rated voltage for testing incandescent lamps; and defining the bulb shapes for elliptical reflector (ER) and bulged reflector (BR) incandescent lamps.

**DATES:** Written comments in response to this notice must be received by the Department by April 15, 1996. The Department requests 10 copies of the written comments and, if possible, a computer disk. (The Department uses WordPerfect.)

There will be a public meeting to gather input on these issues in Washington, D.C., on March 5, 1996. The meeting will begin at 9:30 a.m. and will be held at the U.S. Department of Energy, Forrestal Building, Room 2E-069, 1000 Independence Avenue, S.W., Washington, D.C.

**ADDRESSES:** Written comments are to be submitted to: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Ms. Sandy Beall, "Energy Conservation Standards Program for Fluorescent and Incandescent Lamps, Docket No. EE-RM-94-220-IF," EE-431, Forrestal Building, 1000 Independence Avenue, SW, Washington, DC 20585-0121. Telephone: (202) 586-7574; Telefax: (202) 586-4617.

Copies of the transcript of the July 19, 1995 lamp workshop and of the public comments on the interim final rule may be read at the Department of Energy Freedom of Information Reading Room, U.S. Department of Energy, Forrestal Building, Room 1E-190, 1000 Independence Avenue, S.W., Washington, D.C. 20585, (202) 586-6020, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:**

Terrence L. Logee, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Mail Station EE-431, Forrestal Building, 1000 Independence Avenue, S.W., Washington, DC 20585-0121, (202) 586-1689

Edward Levy, Esq., U.S. Department of Energy, Office of General Counsel, Mail Station GC-72, Forrestal Building, 1000 Independence Avenue, S.W., Washington, DC 20585-0103, (202) 586-2928

**SUPPLEMENTARY INFORMATION:****1. Authority**

Part B of Title III of the Energy Policy and Conservation Act, Pub. L. 94-163, as amended (EPCA) or the Act, created the Energy Conservation Program for Consumer Products other than Automobiles (Program). The products currently subject to this Program include certain fluorescent and incandescent lamps and medium based compact fluorescent lamps. EPCA sets minimum energy conservation standards for general service fluorescent and incandescent reflector lamps and requires the Department to develop test procedures.

**2. Background**

On September 28, 1994, the Department published an interim final rule establishing test procedures for general service fluorescent and incandescent lamps and for medium based compact fluorescent lamps, 59 FR 49468, and a Notice of Proposed Rule for definitions of rough and vibration service incandescent reflector lamps and colored fluorescent and incandescent lamps, 59 FR 49478. In addition DOE held a hearing on the proposed rule on November 15, 1994 and a workshop on these issues on July 19, 1995. The Department received many comments on the interim final rule and on the proposed rule including comments from manufacturers, a national trade association, a professional society, a utility, and a Federal agency. The comments included requests that the Department: (1) modify its test procedure sampling plan to change the confidence limit, "derating factor," and statistical test used to determine compliance of certain lamps with the energy conservation standards; (2) permit testing and compliance for incandescent lamps at a lamp's design voltage, and expand the voltage range from the statutory requirement of 115 through 130 volts to 100 through 150 volts; (3) define the exemption for the bulged reflector (BR) and elliptical

reflector (ER) incandescent reflector lamp by reference to the American National Standards Institute (ANSI) C79.1-1994; (4) determine that a new product coming on the market, a fluorescent lamp rated at 25 watts, which is below the 28 watt threshold for coverage under EPCA, is actually a 40 watt fluorescent that is covered by the statutory standards and test procedures; and (5) revise its proposed definition of colored fluorescent and incandescent lamps.

In response to the foregoing suggestions, the Department is considering various options to alter the Interim Final and Proposed Rules. Because the issues raised by these options were not expressly considered in either the preamble to the Interim Final or Proposed Rules, the Department is now seeking comment from interested parties on these options. In particular, the Department seeks any new factual information and data that will assist it in addressing these issues.

**3. Discussion***a. Revision of the Sampling Plan.*

DOE's Energy Conservation Program for Consumer Products has been developed and refined since its inception in 1978. Compliance with energy efficiency standards has been assured in part by having each manufacturer certify that its covered products comply with the applicable energy efficiency standard. The certification must be based on tests of the product in accordance with test procedures prescribed by DOE.

In promulgating test procedures applicable to certification, one of the major goals has been to provide a statistically valid approach so that there is a high probability that products which have been tested and certified as being in compliance with the applicable efficiency standards actually comply with those standards. Each DOE test procedure incorporates a sampling plan, and that sampling plan is designed to give reasonable assurance that the true mean performance of the product being manufactured and sold meets or exceeds the DOE energy efficiency standard.

DOE recognizes that units of a product may vary in energy efficiency for a number of valid reasons, including differences in component parts, production and testing. The risk to the public of purchasing a non-complying product, the risk to manufacturers of selling such a product, and the burdens of performing representative testing, are reduced through the application of a statistically meaningful sampling plan and basing the certification decision on the mean energy performance of the sample units.

There are several critical elements of a sampling plan. One is the selection of units for testing. Units must be representative of the product, and be selected randomly from a batch. Sample size is also a critical element of a sampling plan. The results yielded by energy efficiency testing of a product, consisting of tests conducted on a sample of units, will be increasingly more reliable as the size of the test sample increases. This, however, increases the testing burden on the manufacturers. Also, as the variability in performance increases among individual tested units of a product, the reliability of the test results decreases. As a result, DOE's test procedures require sampling plans based on a confidence limit approach. This approach is designed to minimize the manufacturers' testing burden while ensuring accurate determination of compliance within a specified level of confidence.

The interim final rule prescribing test procedures for lamps requires a minimum sample size of 20 units for each model, which must be randomly selected during seven out of 12 months of production. The rule further provides in essence that the lamp efficacy for a given model of lamp shall be the average efficacy for the tested lamps of that model, and "shall be no greater than the lower of (i) the mean of the sample or (ii) the lower 99 percent confidence limit of the true mean divided by 0.99." DOE views the latter calculation as being a one-sided confidence interval using the t-statistic, with the 0.99 divisor constituting a "derating" factor. The confidence limit would be calculated using generally accepted methods found in statistics textbooks, based on the sample mean and sample standard deviation.

DOE included the derating factor to take into account variability in the efficiency of products due to many factors, including manufacturing variability, variations in the material (e.g., phosphors), and testing errors, including reference lamp calibration errors. Furthermore, this format (confidence limit divided by a derating factor) is similar to the format required for other appliance products for which DOE has authority to require testing.

The National Electrical Manufacturers Association (NEMA) has proposed loosening the confidence interval to 95 percent, and changing the derating factor to 0.97, which increases its derating effect. It justifies this proposal on the basis of typical production variations and measurement uncertainties, including calibration issues. NEMA submitted estimates of

the magnitude of these variations and their effect on compliance determinations. They estimated an uncertainty of 2 percent due to the reference lamps used in the measurement process, with additional variability among different laboratories.

NEMA has also proposed substituting the z-statistic procedure for the t-statistic procedure. The z-statistic procedure is similar to the t-statistic procedure, except that, for each model of a product, it uses the standard deviation,  $\sigma$ , that applies to the entire population of manufactured units for that model. That standard deviation is assumed to be known from previous measurements. The t-statistic procedure, by contrast, uses the standard deviation,  $s$ , of the sample units tested. The z-test also replaces the factor  $t$  with another factor  $z$ , both of which are found in standard tables.

The effect of going to a 95 percent confidence limit will be to make it slightly easier to demonstrate compliance, while also slightly increasing the chance that a noncompliant product will be judged to be in compliance. In other words, when testing demonstrates compliance at the 95 percent confidence level, there would be a one in twenty chance that a non-tested unit of the product may not meet the standards instead of a one in one hundred chance under the procedure promulgated by the interim final rule.

The effect of using the z procedure instead of the t procedure will be to produce lower confidence limit values which are more favorable to the manufacturers, because the value of the z factor from the tables is less than the value of the t factor, unless the number of sample units,  $n$ , is very large. However, the z procedure is more representative than the t procedure because the standard deviation in the z method is determined from a larger population than the standard deviation in the t method. Use of the z procedure requires an accurate measurement of the population standard deviation for each model. Accurate measurement would appear to require, for example, prior tests of a large number of units of that model selected at random, conduct of the prior testing in accredited laboratories, and prior testing conducted under conditions and using test procedures that are comparable to current conditions and procedures.

The Department is considering the option of permitting a manufacturer to use the "z" statistic as an alternative to the "t" statistic, for tests of any product for which the following criteria are met: (1) the standard deviation used in the

test procedure was derived from a minimum sample of 60 or more randomly selected lamps of the same basic model; (2) the statistical data was measured by accredited laboratories; (3) the prior testing was conducted under conditions and using test procedures comparable to current conditions and procedures. When these criteria are not met, a manufacturer would be required to use the "t-statistic." The Department specifically seeks input on whether lamp manufacturers can derive standard deviations for their products from historic test experience. The Department is seeking comment on this approach or other possible uses of the "z" statistic. The Department is also considering, and seeks comments on, modification of the derating factor and confidence interval, as suggested by NEMA.

b. *Definition of Rated Voltage, Determination of Test Voltage and Determination of Voltage Range.* When the Department considered test procedures for incandescent lamps in the interim final rule, it noted that neither the definition of incandescent lamp in Section 321(30)(C) of the Act, 42 U.S.C. 6291(30)(C), nor Illumination Engineering Society LM-20, "Approved Method for Photometric Testing of Reflector-Type Lamps" defined the test voltage. Therefore, in the interim final rule, the Department requires testing of all incandescent lamps at 120 volts to be consistent with the statutory requirements for labeling. 10 CFR Part 430, Subpart B, Appendix R, Section 4.2.1.

In its comments, NEMA requested that the Department allow testing of incandescent lamps at their design voltage. Otherwise, NEMA claimed that certain 125 and 130 volt lamps would be banned from the market by failing to meet the standards if tested at 120 volts. The industry and NEMA also claim that 125 and 130 volt lamps serve two market niches: regions in the country where power line voltage is greater than the nominal 120 volts and applications requiring long life lamps. Manufacturers claim that they would be forced to sell lamps with decidedly shorter lives than the 125 and 130 volt lamps currently in the marketplace if DOE requires compliance with the standards at 120 volts.

In response to queries by NIST, Philips proposed that the Department consider requiring testing of incandescent lamps at the rated voltage marked on the lamp. Furthermore, when a lamp is marked with a voltage range, Philips proposed that the rated voltage should be taken as the mean of the voltage range. This wording is based on text taken from the International

Electrochemical Commission Standard 432-1.

The Department believes that requiring compliance for incandescent lamps at 120 volts will reduce lamp life for some consumers and may also remove most 125 and 130 volt lamps from the marketplace. However, none of the manufacturers define what is meant by design voltage. Therefore, since the statute uses rated voltage, the Department is considering adopting the definition of rated voltage from the Institute of Electrical and Electronics Engineers Standard Dictionary of Terms which defines rated voltage as "the voltage to which operating and performance characteristics are referred." Furthermore, the Department is considering a requirement to test incandescent lamps at the rated voltage, as marked on the lamp, or at the mean of rated voltage range, as marked on the lamp. This approach would provide for testing incandescent lamps at a known reference voltage for certification to the energy efficiency standards while agreeing with the Federal Trade Commission (FTC) requirements for labeling. The Department is also considering the option of requiring that lamps not marked with a voltage will be tested at 120 volts.

With respect to the issue of "rated voltage range" the definition of "incandescent reflector lamp" in the Act, refers to a "rated voltage or rated voltage range at least partially within 115 to 130 volts." Section 321(30)(C)(ii), 42 U.S.C. 6291(30)(C)(ii). NEMA recommended expansion of the voltage range in the statute to 100 to 150 volts, asserting that the statutory limit could unintentionally allow evasion of the standards requirements for certain products. Under the language in the statute, for example, a product could be rated at 131 volts, thereby removing it from the standard. Yet this product would perform acceptably in a 130 volt environment and could be sold for such applications.

The interim final rule incorporates the statutory definition of incandescent lamp including the voltage range. The Department will continue to use this definition. The Department notes that only one manufacturer currently markets lamps with design voltages greater than 130 volts. However, in response to queries by NIST, several manufacturers agreed that the nominal tolerance for incandescent lamp voltage is  $\pm 10$  percent. The Department believes that the statutory range of 115 to 130 volts may also be subject to this tolerance. Therefore, the Department is considering the option of treating lamps with voltages greater than 103.5 volts

and less than 143.0 volts as being "at least partially within a rated voltage range of 115 to 130 volts," and subject to the energy efficiency standards.

The Department is seeking comments on the acceptability and workability of these options for rated voltage, test voltage and rated voltage range.

Alternative proposals are welcome but the Department requests that these proposals be supported by references to existing or draft industry standards or that the proposals be supported by data.

#### c. *ER and BR Reflector Lamp*

**Definitions.** The Act contains exemptions for several types of incandescent reflector lamps including those for ER (elliptical reflector) and BR (bulged reflector) bulb shapes. Section 321(30)(C)(ii), 42 U.S.C. 6291(30)(C)(ii). However, these lamps are not defined in the statute or the interim final rule and DOE is concerned that the exemption may be abused without a clear definition of what constitutes an ER or BR bulb.

One commenter provided copies of ANSI Standard C79.1-1994 which contain descriptions of the ER and BR bulb shapes. Another commented that if the ANSI definition was different than what some manufacturers have been using, there would be tooling costs to conform the lamp envelope to the new shape definition and DOE should provide time for manufacturers to implement the new ANSI requirements. In its comments to the workshop, NEMA claimed that there was a consensus to define ER and BR lamps by reference to ANSI Standard C79.1-1994.

An Osram-Sylvania Inc. (OSI) comment claims that: (1) the BR lamp is not marketed for recessed applications; (2) BR lamps are more efficient than rough/vibration service R lamps; (3) the BR lamp is less costly for the residential market than the halogen PAR lamp; (4) OSI has introduced a 65 watt BR lamp which meets the efficiency standards; and (5) the ANSI C79.1-1994 bulb shape standard is a result of the mandatory ANSI 5-year revision cycle and it is fundamental to all lamp/fixture interchangeability. The Department notes, however, that the previous ANSI revision to the bulb shape standard was published in 1984.

During the workshop, the American Council for an Energy Efficient Economy (ACEEE) commented that this exemption was placed in the statute to protect one small manufacturer and that the drafters of the Energy Policy Act of 1992 (EPACT) believed that these products were not sold in large quantities and were expected to disappear from the market. Furthermore, ACEEE comments

suggested that the exemption was meant to apply to lamps that are rated with lower wattage than their reflector (R) or parabolic aluminized reflector (PAR) counterparts. In its written comments, ACEEE requested that DOE define ER and BR lamps in a way that would limit exemptions for these lamps as originally intended in EPACT.

The Department believes the definitions of ER and BR bulb shapes in ANSI Standard C79.1-1994 (Figure 1 on page 7) are new definitions of the ER and BR bulb shapes because earlier versions of ANSI Standard C79.1 did not include definitions for either ER or BR bulb shapes in their current form. ANSI C79.1-1984 discusses the bulged (B) and elliptical (E) shape designations as basic bulb shapes of general service incandescent lamps. The "RE" elliptical reflector shape in the 1994 ANSI C79.1 standard could be described as cutting off the top half of the basic "E" bulb shape in the 1984 document since the elliptical portion of the "E" bulb forms that part of the "RE" bulb below the major axis or lens of the reflector bulb. However, the bulged reflector bulb would represent a greatly diminished "B" shaped bulb with a reflector bulb connected to the top of this small "B" shaped bulb. For these reasons, the Department believes the 1994 ANSI document represents a major modification of elliptical and bulged bulbs from the 1984 document.

ER and BR reflector bulb shapes typically have a long neck, a characteristic which is not addressed in ANSI C79.1. This is presumably to extend the lens closer to the end of recessed ceiling fixtures in the ER bulb. Therefore, the Department believes the ANSI C79.1-1994 definitions of the ER and BR bulb shapes are subject to interpretation, and questions whether these definitions agree with the commonly understood bulb shapes being manufactured and which were contemplated by exclusion of ER and BR bulbs from EPCA coverage.

Although the Department believes the ANSI Standard C79.1-1994 does not fully prescribe the ER and BR bulb shapes, the Department is considering adopting ANSI Standard C79.1-1994 as part of the definition of an ER or BR bulb shape, subject to additional criteria, to capture the characteristics of ER and BR bulbs in the marketplace at the time the exemptions were established. One criterion being considered is a longer neck than an R or PAR lamp with either a specified dimension or a dimension stated as a comparison, such as 25 percent longer than similar wattage R or PAR lamps. An additional criterion under

consideration for the BR lamp is to require that the bulged shape must be reflectively coated and large enough to redirect light emitted by the filament to the side and rear of the lamp toward the lens. The Department is also considering a requirement for a reduced wattage filament for both ER and BR lamps. The Department is seeking comment on whether to specify a certain wattage reduction or to state this reduction as a percentage comparison to standard R or PAR lamps.

The Department invites comments on the definitions for ER and BR lamps it is considering. The Department also requests copies of catalog listings and other data to help it determine the extent of reduced wattage ER and BR lamps offered in the market.

**d. *Determination of Rated Wattage for a Fluorescent Lamp.*** EPCA sets standards for fluorescent lamps 48 inches long with rated wattages of 28 watts or more, 96 inches long with rated wattages of 52 watts or more, and 2 foot U-tube lamps with rated wattages of 28 watts or more. Sections 321(30)(A) and 325(i)(1), 42 U.S.C. 6291(30)(A) and 6295(i)(1). The standard levels have the effect of prohibiting the sale, after October 31, 1995, of certain lamps previously on the market, including 4-foot, 40 watt cool white fluorescent lamps.

The 4-foot, 40 watt cool white fluorescent lamp consumes 40 watts of power when used with a conventional high power factor ballast. High power factor ballasts are used in over 85 percent of the fluorescent fixtures using four foot lamps. Such high power factor ballasts are typically used in commercial applications. If a 40-watt cool white lamp is used with the type of low power factor ballast generally used in residential applications, the lamp will consume about 25 watts, which is below the 28 watt threshold that defines the lower limit of coverage in the standards.

Neither the statute nor DOE's existing regulations specify the type of ballast to be used in determining the rated wattage of lamps. In the absence of a specification, some have argued that 4-foot lamps could have their rated wattage determined using a low power factor ballast and if, using this testing method, the rated wattage was less than 28 watts, the lamp would be exempt from the standard.

DOE believes that it is unreasonable to apply this statute so as to permit the continued manufacture and sale of lamps that when used with the most common types of ballasts (i.e., high power factor) would consume 28 or more watts, but fail to meet the

standards prescribed by the statute. In an attempt to address this concern, DOE sent a letter on August 30, 1995, to lamp manufacturers indicating that it would consider any lamp that was electrically the same as the 40-watt cool white lamp to be subject to the same statutory standards. However, manufacturers have since begun to introduce, or indicated that they plan to introduce, slight variations on the 40-watt cool white lamp that would be rated at 25 watts based on use of low power factor ballasts. Despite these modifications, the lamps being marketed or developed would still perform like 40-watt cool white lamps when used in high power factor ballasts.

The Department believes that Congress intended the rated wattage of fluorescent lamps, for purposes of defining the universe of lamps covered by the standards, to be determined by using a high power factor ballast. The wattages included in the table that now appears in section 325(i) of the Energy Policy and Conservation Act appear to assume the use of high power factor ballasts. 42 U.S.C. 6295(i). In addition, when Congress had previously set efficiency standards for ballasts, those standards were only applied to high power factor ballasts.

The Department is now considering a requirement that the rated wattage of a fluorescent lamp, for purposes of determining coverage by the standards, is the measured wattage when the lamp is used with a high power factor ballast. The Department is soliciting public comment on the possibility of requiring the use of high power factor ballasts in determining the rated wattage of fluorescent lamps. Before making a final determination on this matter, the Department also intends to consider other possible means to achieve comparable objectives.

For example, the Department is considering the approach used in the Canadian lamp regulations issued in the November 29, 1995 Canada Gazette, Part II, Volume 129, No. 24, pg 3073. Under this possible approach, the Department would add an additional phrase to the definition for general service fluorescent lamp specifying that, "General service fluorescent lamp means any fluorescent lamp that is a physical and electrical equivalent of a lamp described in paragraph (a), (b), (c), or (d)." However, the Department believes that this approach may suffer the same weakness as DOE's attempt to elaborate on the definition of basic model discussed in the DOE letter of August 30, 1995.

The Department also will consider determining whether a particular lamp is covered by the standards by requiring

that its measured wattage be compared to the measured wattage of a similar covered lamp using the same ballast. The wattage of the covered lamp divided by the wattage of the lamp in question would be multiplied by the wattage marked on the covered lamp to determine the rated wattage of the lamp in question. However, this approach may not work for new products.

The Department is concerned, however, that if it requires rated wattage to be determined using a high power factor ballast, manufacturers might be inhibited from producing certain products designed and marketed for use exclusively with low power factor ballasts. Even though there are now available a number of lamps that can be safely used in low power factor ballasts, and which would be unaffected by this proposal, the Department does not want to restrict unnecessarily the choices that might be available to users of low power factor ballasts in the future. For this reason, the Department is soliciting public comment and proposals on how it might use its discretionary regulatory authority or its authority to grant certain waivers or exemptions to address this possible problem. Specifically, DOE is interested in identifying specific technical features or performance or other characteristics of lamps that would provide reasonable assurance that such lamps would be used exclusively in low power factor ballasts.

At least one manufacturer has indicated that it believes that a substantially reduced lamp life (e.g., 6,000 hours compared to the industry norm of 20,000 hours) should restrict the usage of such lamps to low power factor ballasts in the residential sector. But DOE is concerned that lamps with useful lives of 6,000 hours may still be widely used with high power factor ballasts. DOE is also concerned that accurately determining average lamp life can be difficult and time consuming and questions the utility to consumers of a requirement that may discourage manufacturers from increasing product life.

The Department recognizes that one of the motivations for introducing modified 40 watt lamps is industry concern that residential and other users of low power factor ballasts might use 34 watt lamps in their fixtures, which would increase the risk of overheating and fires. While consumers have a range of safe alternatives to the 34 watt lamp, and 34 watt lamps are being labeled to warn consumers against their use with low power factor ballasts, DOE believes that these industry concerns may be valid. DOE solicits public comment on these concerns and how DOE might best

use its regulatory authorities to ensure consumers are adequately protected.

Finally, in order to better assess these issues, the Department is seeking more information on the size and characteristics of the market for lamps used in low power factor ballasts.

e. *Definition of Colored Fluorescent and Incandescent Lamp.* In the Notice of Proposed Rulemaking, the Department defined colored fluorescent and colored incandescent lamps because Sections 321(30)(B)(iii), 321(30)(C)(ii), 42 U.S.C. 6291(30)(B)(iii) and 42 U.S.C. 6291(30)(C)(ii) of the Act contain exemptions for these lamps without defining them. The Department is seeking definitions of colored lamps which can be determined by measurement of certain characteristics. Therefore, the Department proposed to define colored incandescent and fluorescent lamps by using suitable minimum values of the Color Rendering Index (CRI) or correlated color temperatures (CCT). (59 FR 49478).

Several manufacturers suggested that the upper limit for CRI for colored fluorescent lamps be increased to 40. Phillips Lighting states that a CRI of 40 will prevent the exclusion of gold fluorescent lamps which are used in printing applications. OSI also recommends that the acceptable CRI for amber and red incandescent lamps be raised but DOE believes that this is not necessary with the proposed revisions to the colored incandescent lamp definition because these lamps have a low CCT.

In its comments to the July 19, 1995 lamp workshop, Durotest suggests that CCT limits for colored fluorescent lamps be less than 2,500° K or greater than 6,600° K or with a CRI less than 40. For incandescent lamps, Durotest suggests that the CCT parameters should be less than 2,500° K or greater than 4,600° K or CRI less than 50. NEMA also suggests using the same CCT and CRI parameters as Durotest. It asks DOE to clarify in the preamble that a lamp is considered colored if its CCT falls outside the range above or if its CRI falls below the values above.

The Department appreciates the industry suggestions for revised limits on CCT and CRI. DOE's original proposal would have defined certain green lamps as white lamps based on their CRI. This problem is caused by the difficulty of choosing a reference lamp of equal CCT to the lamp in question and because CRI was originally intended to characterize non-colored lamps.

As a result of industry suggestions and comments, one option the Department is considering is to revise

its proposed definition of a colored lamp by using a maximum value of CRI or a suitable band of CCT. Therefore, the Department is considering a definition of colored fluorescent lamp as a lamp with a CRI value less than 40 or a color correlated temperature not above 2,500° K for red and yellow colors or not below 6,600° K for blue and green colors. The Department is also considering a definition of colored incandescent lamp as a lamp with CRI values below 50 or a lamp color correlated temperature either not above 2,500° K for red and yellow colors or not below 4,600° K for blue and green colors. The Department believes that the measurements required to determine if a lamp is colored by the above definitions are minimal. The CRI is a required measurement for fluorescent lamps and manufacturers would only have to make a CRI measurement for lightly tinted incandescent lamps. The color temperature is derived from spectroradiometric measurements and this data already exists for most lamps.

However, at the July 19, 1995 lamp workshop, NEMA proposed an alternative definition of colored lamps which depends on the excitation purity of a colored source. Excitation purity is defined as the ratio of two collinear distances (NC/ND) on the Commission Internationale de L'eclairage (CIE) chromaticity diagram. NC is the distance between the point representing the sample lamp and a specified reference point. ND is the distance between the point locating the dominant wavelength of the sample lamp and the specified reference point. NEMA suggests that a value of excitation purity greater than 50 percent would be a reasonable lower limiting value defining a colored lamp. NEMA claims that a single definition will suffice for all colors. Plotting one number on the x,y chromaticity diagram which shows the 50 percent excitation purity area marked on it will quickly determine whether a lamp is colored. Furthermore, NEMA requested that the Department not finalize the colored lamp definition until they complete their specification of chromaticity coordinate boundaries.

NEMA notes that the excitation purity method proposed will not discriminate between clear and colored lamps with CCT's from slightly above 2,856°K and lower. This is an inherent drawback of the chromaticity diagram and redefining the excitation purity limit will not correct it. NEMA suggests that the Department define a colored region around the black body locus on the chromaticity diagram as white. The area within the 50 percent excitation purity area is called pastel and lamps in this

area must be marked for a specific application to be called colored. Although the excitation purity method fits DOE's criteria for a measurable colored lamp definition, the Department is not inclined to adopt this method because it is complicated to describe due to the use of three zones on the chromaticity diagram.

As a second option, the Department is considering a colored lamp definition using x, y chromaticity coordinates which lie outside of the area bounded by the following points: (0.285,0.332); (0.453,0.440); (0.500,0.440); (0.500,0.382); (0.440,0.382); (0.285,0.264). These boundaries are taken from CIE Publication No. 2.2, Colors of Light Signals.

The Department believes that defining a colored lamp by using the chromaticity coordinates above will satisfy manufacturers' concerns that lamps of low color temperature but near the black body locus should be considered white. Likewise, this method satisfies a DOE concern that valid orange and red colored lamps on or near the black body locus would not be considered colored.

Since an incandescent lamp creates light by heating a filament "white hot," some lightly tinted incandescent lamps lie very near the black body curve on the x-y chromaticity diagram. The Department believes that the x-y chromaticity definition of colored lamps will apply to nearly all colored lamps with a few significant exceptions. Very lightly tinted incandescent lamps, such as jeweler's blue and plant grow lamps, may not meet the colored lamp definitions as they are currently proposed. NEMA recommends an exemption for colored incandescent plant lamps because there is a filter in these lamps which affects the yellow and green parts of the spectrum. NEMA also suggests that DOE require manufacturers provide a generic description of a plant lamp's features and require that these lamps be marketed and designated for plant lighting applications. In addition to the above, GE Lighting proposes to add that colored lamps are not suitable for general lighting applications. Therefore, the Department is considering an additional criteria in the definition of colored incandescent lamps that would require application specific incandescent colored lamps to be designated as such on the lamp and in marketing materials.

Additionally, Durotest has urged the Department to provide an explicit exemption for neodymium lamps because they claim that the color is doped directly into the glass bulb.

Therefore, the Department is considering specifying that incandescent lamps with lens filters containing 5 percent or more neodymium are colored lamps. The neodymium filter adjusts the light spectrum for reptile lighting applications.

#### 4. Public Meeting Procedure

At the public meeting, DOE will seek discussion of the points discussed in this notice. Should any party wish to raise any other matter addressed in the Interim Final or Proposed Rules, they should so notify DOE by February 29, 1996.

The meeting will be conducted in an informal, conference style. A court reporter will be present to record the minutes of the meeting. There shall be no discussion of proprietary information, costs or prices, market shares, or other commercial matters regulated by antitrust law. After the meeting and period for written statements, the Department will consider the views presented in formulating a Final Rule regarding fluorescent and incandescent lamp test procedures.

Issued in Washington, DC, February 22, 1996.

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Chief of Staff, Energy Efficiency and Renewable Energy.

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## FEDERAL RESERVE SYSTEM

### 12 CFR Part 261

[Docket No.R-0917]

#### Rules Regarding Availability of Information

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Proposed rule.

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**SUMMARY:** The Board of Governors of the Federal Reserve System (Board) is proposing technical amendments to its Rules Regarding Availability of Information (Information Rules). The Board's review of the Information Rules has been conducted in accordance with section 303 of the Riegle Community Development and Regulatory Improvement Act of 1994. The proposed amendments clarify certain provisions of the Rules and simplify the processing of requests for access to information in certain circumstances. More specifically, the Board's proposed changes would conform the language of