

hereby given of the following Advisory Committee meeting: Environmental Management Site-Specific Advisory Board (EM SSAB), Oak Ridge.

**DATES:** Wednesday, April 3, 1996: 6:00 p.m.–9:00 p.m.

**ADDRESSES:** Jacobs Engineering Group, Inc. Building, Einstein Conference Room, 125 Broadway, Oak Ridge, Tennessee.

**FOR FURTHER INFORMATION CONTACT:** Sandy Perkins, Site-Specific Advisory Board Coordinator, Department of Energy Oak Ridge Operations Office, 105 Broadway, Oak Ridge, TN 37830, (423) 576–1590.

**SUPPLEMENTARY INFORMATION:**

*Purpose of the Board:* The purpose of the Board is to make recommendations to DOE and its regulators in the areas of environmental restoration, waste management, and related activities.

Tentative Agenda

*April Meeting Topics*

The Board will be briefed on the planning for construction of a waste management facility for waste generated by the environmental restoration program and currently stored waste. Discussions will also continue on the standing rules for the Board.

*Public Participation:* The meeting is open to the public. Written statements may be filed with the Committee either before or after the meeting. Individuals who wish to make oral statements pertaining to agenda items should contact Sandy Perkins at the address or telephone number listed above. Requests must be received 5 days prior to the meeting and reasonable provision will be made to include the presentation in the agenda. The Designated Federal Official is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Each individual wishing to make public comment will be provided a maximum of 5 minutes to present their comments.

*Minutes:* The minutes of this meeting will be available for public review and copying at the Freedom of Information Public Reading Room, 1E–190, Forrestal Building, 1000 Independence Avenue SW., Washington, DC 20585 between 9 a.m. and 4 p.m., Monday–Friday, except Federal holidays. Minutes will also be available at the Department of Energy's Information Resource Center at 105 Broadway, Oak Ridge, TN between 8:30 a.m. and 5:00 p.m. on Monday, Wednesday, and Friday; 8:30 a.m. and 7:00 pm on Tuesday and Thursday; and 9:00 a.m. and 1:00 p.m. on Saturday, or by writing to Sandy Perkins, Department of Energy Oak Ridge

Operations Office, 105 Broadway, Oak Ridge, TN 37830, or by calling her at (423) 576–1590.

Issued at Washington, DC, on March 8, 1996.

Rachel Murphy Samuel,  
*Acting Deputy Advisory Committee Management Officer.*

[FR Doc. 96–6292 Filed 3–14–96; 8:45 am]

**BILLING CODE 6450–01–P**

**Environmental Management Site-Specific Advisory Board, Pantex Plant**

**AGENCY:** Department of Energy.

**ACTION:** Notice of open meeting.

**SUMMARY:** Pursuant to the provisions of the Federal Advisory Committee Act (Pub. L. 92–463, 86 Stat. 770) notice is hereby given of the following Advisory Committee meeting: Environmental Management Site-Specific Advisory Board (EM SSAB), Pantex Plant.

**DATE AND TIME:** Tuesday, March 26, 1996: 1:30 p.m.–5:30 p.m.

**ADDRESSES:** Amarillo Association of Realtors, 5601 Enterprise Circle, Amarillo, Texas.

**FOR FURTHER INFORMATION CONTACT:** Tom Williams, Program Manager, Department of Energy, Amarillo Area Office, P.O. Box 30030, Amarillo, TX 79120 (806)477–3121.

**SUPPLEMENTARY INFORMATION:**

*Purpose of the Committee:* The Board provides input to the Department of Energy on Environmental Management strategic decisions that impact future use, risk management, economic development, and budget prioritization activities.

*Tentative Agenda*

1:30 pm Welcome—Introductions—  
Approval of Minutes

1:40 pm Co-Chairs' Comments

2:00 pm Task Force Reports

—Public Participation/Public  
Information Community “Core  
Values” Assessment

—Environmental Restoration

—Site-wide Environmental Impact  
Statements

2:30 pm Updates

—Occurrence Reports—DOE

—Agency for Toxic Substances  
Disease Registry, Rick Collins

3:00 pm Break

3:15 pm Discussion & Overview of  
Programmatic Environmental  
Impact

Statements and Pantex Site-wide  
Environmental Impact Statement

—State Agencies

—DOE

4:45 pm Subcommittee Reports

—Budget and Finance

—Community Outreach

—Policy and Personnel

—Program and Training

—Nominations

5:30 pm Adjourn

*Public Participation:* The meeting is open to the public. Written statements may be filed with the Committee either before or after the meeting. Written comments will be accepted at the address above for 15 days after the date of the meeting. Individuals who wish to make oral statements pertaining to agenda items should contact Tom Williams' office at the address or telephone number listed above. Requests must be received 5 days prior to the meeting and reasonable provision will be made to include the presentation in the agenda. The Designated Federal Official is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Each individual wishing to make public comment will be provided a maximum of 5 minutes to present their comments. This notice is being published less than 15 days before the date of the meeting, due to programmatic issues that had to be resolved prior to publication.

*Minutes:* The minutes of this meeting will be available for public review and copying at the Pantex Public Reading Rooms located at the Amarillo College Lynn Library and Learning Center, 2201 South Washington, Amarillo, TX phone (806) 371–5400. Hours of operation are from 7:45 am to 10:00 pm, Monday through Thursday; 7:45 am to 5:00 pm on Friday; 8:30 am to 12:00 noon on Saturday; and 2:00 pm to 6:00 pm on Sunday, except for Federal holidays. Additionally, there is a Public Reading Room located at the Carson County Public Library, 401 Main Street, Panhandle, TX phone (806) 537–3742. Hours of operation are from 9:00 am to 7:00 pm on Monday; 9:00 am to 5:00 pm, Tuesday through Friday; and closed Saturday and Sunday as well as Federal Holidays. Minutes will also be available by writing or calling Tom Williams at the address or telephone number listed above.

Issued at Washington, DC on March 8, 1996.

Rachel Murphy Samuel,  
*Acting Deputy Advisory Committee Management Officer.*

[FR Doc. 96–6293 Filed 3–14–96; 8:45 am]

**BILLING CODE 6450–01–P**

## Office of Energy Efficiency and Renewable Energy

### Voluntary Program To Provide Energy Efficiency Information for Luminaires

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

**ACTION:** Notice of determination.

**SUMMARY:** The Energy Policy Act of 1992 (EPACT) requires the Secretary of Energy to make a determination on whether a voluntary national testing and information program for luminaires, developed by an appropriate organization, meets the objectives of the legislation. The Department of Energy has provisionally determined that the National Lighting Collaborative's voluntary testing and information program for luminaires will be consistent with the objectives of EPACT when it is demonstrated to the Department that the program has been fully implemented so that reliable and comparative energy efficiency information about luminaires is widely available to luminaire purchasers. A final determination will be made no later than December 15, 1998.

**FOR FURTHER INFORMATION CONTACT:** Barbara Twigg, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Mail Station EE-431, 1000 Independence Avenue, SW., Washington, DC 20585-0121, (202) 586-8714

Edward P. Levy, Esq., U.S. Department of Energy, Office of General Counsel, Mail Station GC-72, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-9507

#### SUPPLEMENTARY INFORMATION:

##### I. Authority

Section 126 of the Energy Policy Act of 1992 (EPACT), Public Law 102-486, directed the Secretary of Energy, after consulting with industry associations and other interested organizations, to provide technical and financial assistance to support a voluntary national testing and information program for those types of luminaires that are widely used, and for which there is a potential for significant energy savings as a result of such program. A luminaire is a complete lighting unit consisting of a lamp or lamps and ballasting (when applicable), together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply. Under Section 126, the voluntary program would provide information that, when conveyed to consumers, would enable purchasers of

the equipment to make more informed decisions about the energy efficiency and costs of competing products. The voluntary program would determine the luminaires to be covered; include specifications for testing procedures; and include information to be disseminated through catalogs, trade publications, labels, or other mechanisms, that would allow consumers to assess the energy consumption and potential cost savings of competing products. Such program would be developed by an appropriate organization (composed of interested persons), according to commonly accepted procedures for the development of national testing procedures and labeling programs.

EPACT requires the Secretary to make a determination not later than three years after the date of its enactment, as to whether the voluntary program that has been developed is consistent with the objectives established for the testing and rating of luminaires. If the Secretary determines that the voluntary program is not consistent with the objectives of the legislation, within two years of such determination the Secretary shall, after consultation with the National Institute of Standards and Technology, develop test procedures for luminaires. One year later, the Federal Trade Commission would prescribe labeling rules.

##### II. Background

Since the passage of EPACT, the Department of Energy has monitored the efforts of interested parties to develop a testing and information program through the National Lighting Collaborative (NLC or Collaborative), a working group composed of the National Electrical Manufacturers Association (NEMA), the American Lighting Association, lighting manufacturers, environmental organizations, designers, national laboratories, electric utility associations, and other lighting professionals. The Department has provided technical and financial assistance to the Collaborative to help launch and publicize the program. DOE held public meetings on May 24, 1994, and on January 5, 1995, to discuss the progress of the voluntary luminaire program and the evaluation criteria that would be considered by the Department in making the Secretary's determination. A June 15, 1995, Federal Register notice announced the Department's evaluation criteria and requested that the Collaborative submit a program description and status report of the voluntary luminaire program to the Department by July 14, 1995.

##### III. DOE Evaluation

The Collaborative submitted a program description and accompanying supporting materials, setting forth its voluntary national testing and information program for luminaires, on September 5, 1995, following a preliminary report submitted on August 5, 1995. Copies of both reports are available in the DOE Freedom of Information Reading Room, U.S. Department of Energy, Forrestal Building, Room 1E-190, 1000 Independence Avenue, SW., Washington, DC, (202) 586-6020, between the hours of 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

In carrying out its evaluation of the NLC's program, the Department has used the following criteria as discussed in the June 15, 1995, Federal Register notice: the organization and composition of the group designing the program; the selection of luminaires to be covered and potential for energy savings; the testing and rating procedures; the effectiveness of the program's energy efficiency information dissemination; the extent of manufacturer participation; the success in publicizing the new national program; the mechanisms for tracking market data and luminaire efficacy; and the plan and structure for continuing the program and incorporating new products. The following sections discuss in detail whether the voluntary luminaire program, as planned, will satisfy the objectives of Section 126 of EPACT.

##### a. Program Organization

The National Lighting Collaborative was established by the representatives of 23 organizations on April 14, 1992, as a consensus organization to resolve opinions on various aspects of lighting policy. The Collaborative includes in its active membership representatives from NEMA, the American Lighting Association, several luminaire manufacturers, the National Institute of Standards and Technology, the International Association of Lighting Designers, the Electric Power Research Institute, the American Council for an Energy Efficient Economy, the Alliance to Save Energy, and Lawrence Berkeley National Laboratory. Together, these participants represent a broad spectrum of opinion on lighting issues, including the varying perspectives of both private companies, testing and research groups, government organizations, utilities, and conservation and environmental groups. The luminaire manufacturer members of NEMA, which serves as the chair of the

Collaborative, represent between 60 and 80 percent of the production in the various fluorescent luminaire product categories, and the lamp and ballast manufacturer NEMA members represent over 90 percent of the production of those luminaire components. NEMA also serves as the administrator of the voluntary luminaire program, with funding provided through its regular membership dues.

The NLC solicits wide participation. Using a mailing list of over 75 individuals and organizations in addition to active participants, the Collaborative has successfully instituted a consensus-building review process through meetings and mailings to develop a broad-based voluntary luminaire program. Several difficult issues have been resolved through this process. For example, a Market Data Task Force was formed which resolved differences among NLC members on the extent of market data reporting that would be practical. The Luminaire Efficacy Rating (LER), the new testing and rating method for comparing the energy efficiency of luminaires, was created by NEMA and approved as NEMA Standard LE5. The Collaborative has developed technical and policy aspects regarding dissemination, publicity, and tracking of the new testing and rating program.

To date, most of the Collaborative's work has focused on the development, review, and enhancement of the voluntary luminaire program. Given its membership, structure, participation, and consensus-building review process, the Department believes the National Lighting Collaborative represents a cross-section of stakeholders, and meets the Energy Policy Act's call for an appropriate organization of interested parties to develop the voluntary luminaire program.

#### b. Coverage

Based on the recommendations of participating manufacturers, the Collaborative selected the following categories of fluorescent luminaires for inclusion in the voluntary program on the basis of their widespread use and significant potential for energy savings: (1) Recessed Lensed 2'x4' (4 lamps); (2) Recessed Lensed 2'x4' (3 lamps); (3) Recessed Lensed 2'x4' (2 lamps); (4) Recessed Parabolic Louvered 2'x4' (4 lamps); (5) Recessed Parabolic Louvered 2'x4' (3 lamps); (6) Recessed Parabolic Louvered 2'x4' (2 lamps); (7) Wraparound (2 and 4 lamps); (8) Strip (1 lamp); (9) Strip (2 lamps); and (10) Industrial (2 lamps). The NLC's program description and status report estimates that these luminaire categories in

aggregate represent (1) at least 80 percent of the total commercial and industrial fluorescent luminaire sales volume (in dollars), and (2) within each of five fluorescent groups,<sup>1</sup> the named products represent over 90 percent of the fixtures in that group. Because of their predominance in market share as the most frequently used luminaires in the commercial and industrial sector, it is estimated by the NLC that the types of luminaires in these 10 categories operate for the most hours, thereby offering the greatest potential for cumulative energy savings. In addition, the program is being expanded to include technologies other than fluorescent: HID industrial luminaires and downlights will be added upon completion and approval of NEMA standards for testing and rating these types of luminaires.

If, as claimed, these categories of luminaires do comprise 80 percent of the total fluorescent luminaire market and show significant potential for energy savings because of their predominance in commercial and industrial use, the Department believes that their selection appears to provide a reasonable base for the initial phase of the program. The Department, however, cannot fully evaluate whether the selected luminaires are 80 percent of the luminaire market because it has not yet received the statistical information requested for verification. NEMA, however, has developed and circulated a statistical reporting form to lighting fixture manufacturers to verify this information. When DOE receives the results of this survey, it is anticipated that the verification data will confirm that the luminaires selected for initial inclusion in the voluntary program are those types that are widely used and for which there is a potential for significant energy savings as a result of such program.

#### c. Testing and Rating

Central to the NLC's program is that participating manufacturers will test and rate, for energy efficiency, each type of covered luminaire. The voluntary program uses the "Luminaire Efficacy Rating" (LER) as the measure of energy efficiency for a luminaire. Under the program, the LER of a given luminaire is determined by applying the calculation and testing procedures set forth in NEMA Standards Publication No. LE5, Procedure for Determining Luminaire Efficacy Ratings for Fluorescent Luminaires (NEMA

Standard LE5). This approach provides a uniform method for determining the energy efficiency of luminaires that use various components (lamps, ballasts, fixtures), and for comparing different luminaires of the same general type. In addition, the program provides a method for comparing the energy costs of different luminaires.

The LER is a single figure that expresses luminaire efficacy in lumens per watt (the ratio of light output from the luminaire in lumens, to the power input to the luminaire in watts) for a given luminaire using a specific set of lamps (e.g., fluorescent tubes) and a specific ballast. The LER is calculated by the following formula:

$$\text{LER} = (\text{EFF} \times \text{TLL} \times \text{BF}) / \text{Watts Input}$$

where:

EFF=luminaire efficiency,

TLL=total lamp lumens,

BF=ballast factor, and

Watts Input=total wattage input to the luminaire as measured during the photometric test.

The TLL is the light output of the lamps being used in the test luminaire, as determined from a table in NEMA Standard LE5 that lists average rated lumens for typical fluorescent lamp types used in a luminaire. The EFF, BF and Watts Input are measurements by the luminaire manufacturer conducted during photometric tests. The EFF represents the effect of the luminaire being tested on the lamps' light output. It is the ratio of the light output of the test luminaire when operated with the lamps being used in the test, to the light output of the same lamps absent the luminaire. The BF represents the effect on lamp light output of the ballast being used in the test luminaire. The Watts Input is the amount of power drawn by the luminaire in the test.<sup>2</sup>

Thus, the LER of a luminaire is the product of the interactive effect of the components that comprise the luminaire—lamp(s), ballast(s), and the fixture itself. The higher the LER, the less energy will be used to produce a given amount of light in equivalent operating conditions. This metric is flexible in that efficiency improvements in either the lamp, ballast, or fixture can raise the LER.

The Collaborative reported that the selection of the Luminaire Efficacy Rating test procedure received consensus support within the luminaire industry, having been balloted according to the formal standards-making balloting procedures per the by-

<sup>1</sup>The groups are: recessed 2'x4' lensed, recessed 2'x4' louvered, plastic wraparound, strip lights, and industrial.

<sup>2</sup>For luminaires on which tests were completed prior to 1993, and which were tested with F40 T12 40 watt lamps, NEMA LE5 permits the use of specified values for ballast factor and Watts input.

laws of NEMA, a review and balloting process accredited by the American National Standards Institute (ANSI). The NLC program and NEMA Standard LE5 specify that luminaire efficiency (EFF) and wattage input shall be determined in accordance with IESNA LM-41, the Illuminating Engineering Society of North America's fluorescent luminaire photometric test procedure, a standard, industry-accepted test procedure. In addition, the ballast factor must be determined in accordance with ANSI C82.2, an ANSI-approved test procedure for ballasts. Other industry test procedures, ANSI C78.1 (Dimensional and Electrical Characteristics of Rapid Start Type Fluorescent Lamps) and C78.3 (Fluorescent Lamps—Instant-start and Cold Cathode Types—Dimensional and Electrical Characteristics), also apply.

To assure uniformity in testing, tests must be completed in a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute for Standards and Technology (NIST) to perform the following tests for luminaires: IESNA LM-41 and IESNA LM-46. (LM-46 concerns the testing of HID industrial luminaires, which the NLC program is expanding to include.) The accreditation must be in accordance with NIST Handbook 150-1, which describes the accreditation program for energy efficient lighting products. It should be noted, as provided in Section 285.33 of Handbook 150-1, that in some instances a laboratory will be accredited to perform a test method but will not have the photometric equipment necessary to test certain of the luminaires covered by the test method. The laboratory will be precluded, therefore, from testing and rating those luminaires.

One matter not yet addressed by either the NLC program or NEMA Standard LE5 is the manner in which the reliability of the LER values derived from performing the foregoing tests is to be adequately assured. For example, for each luminaire rated, tested units should be representative of those being produced, and the test should provide a sufficient degree of confidence that the LER value determined will apply to units of the tested product that are available for sale. Such provisions would appear necessary to assure that the test procedures provided by the NLC program would produce adequately reliable information for consumers about energy consumption and costs.

The energy cost information called for in the program is calculated from a cost measurement formula set forth in NEMA Standard LE5, and adopted for

use in the voluntary program. The calculation provides a single comparative measure called the yearly lighting energy cost (or yearly energy cost of light) for the luminaire's electricity costs (in dollars per 1,000 lumens), assuming comparable conditions of use (3,000 annual lighting operating hours and \$0.08/KWh electricity cost, the 1993 average commercial sector electricity rate specified in NEMA Standard LE5). The yearly lighting energy cost provides a relative comparison of annual operating costs between luminaires. (Actual costs depend on electricity price, operating hours, and operating conditions). If the light output from two luminaires being compared is identical, the one with the higher LER will have the lower operating costs.

Because the Luminaire Efficacy Rating system will provide a uniform, comparative measure with which consumers can assess the relative energy consumption and potential cost savings of alternative products, and has been developed, as required by EPACT, "according to commonly accepted procedures for the development of national testing procedures," DOE finds that in significant respects the NLC program satisfies the objectives of EPACT as to the test procedures to be included in a voluntary program for luminaires. DOE expects that the NLC will satisfactorily address the matter of the reliability of test results so that the program fully satisfies the requirements of Section 126 of EPACT.

#### *d. Information Program*

Section 126(a)(2)(C) of EPACT states that the program "shall include information [about luminaires], which may be disseminated through catalogs, product literature, labels, or other mechanisms, that will enable consumers to assess the energy consumption and potential cost savings of alternative products." The NLC program calls for dissemination of each luminaire's LER and energy cost by sales catalogs and product literature, rather than labels, and for publicity and education activities directed at customer/users to inform them of the rating system. These methods were chosen because fluorescent luminaires are primarily purchased by commercial and industrial buyers based on printed specifications in catalogs or product literature.

Lighting specifiers such as designers, architects, electricians, or facility managers rarely see the packaging in which the luminaires are shipped, and may not even see the product itself until it is installed (if at all). By contrast, off-the-shelf purchasing is more typically

done by residential customers, who currently constitute a small portion of the luminaire market. Therefore, labels on the luminaires or luminaire packaging might be ineffective, and the recommendation by the Collaborative that catalog literature and other product literature be the primary modes of information dissemination is sound. Since manufacturers typically reprint their catalogs on a three-year cycle, however, the Collaborative has agreed that the dissemination effort could be assisted by using other types of product and advertising literature which are produced more frequently, and by using an informed sales force to promote awareness of the new energy efficiency information among their customers. Several major manufacturers have already produced such materials and initiated sales presentations to explain and promote the new information system.

In addition to delineating formulas and test procedures for calculating the LER, NEMA Standard LE5 identifies the information concerning each luminaire's energy efficiency that should be included in a manufacturer's promotional literature and catalogs. Furthermore, it contains a suggested format, developed in consultation with and adopted by the Collaborative, for presenting that information. The format includes the catalog number (showing number of lamps), luminaire category, ballast type, luminaire lumen output, luminaire watts input, LER, yearly lighting energy cost for comparative purposes, and luminaire efficiency. The LER two-letter luminaire category code includes an "F" for fluorescent, as well as a second letter code indicating one of five major luminaire types. This ensures that luminaires from categories intended for similar design conditions will be compared with each other, rather than across dissimilar categories. It has also been proposed by the International Association of Lighting Designers (IALD) that the NEMA Standard LE5 reporting format be modified to include a measure for the quality of light, as well as efficiency. The Collaborative agreed, but since this "quality metric" is under development by professional committees of the IALD and the Illuminating Engineering Society of North America, the NEMA Standard LE5 will at first include an acknowledgement in the foreword that a numerical value for lighting quality will accompany the LER after the development of the measure is completed and balloted.

Based on the examples of major manufacturer product materials submitted thus far, the Department finds

the presentation of the new LER rating to be clear and well-presented overall. Explanations of how to use the new energy information were included in the product materials examples, and the LER rating number and yearly lighting energy cost were included effectively in photometric data sheets. One company, however, did not include in its descriptive product literature the letter indicating the luminaire category, which NEMA Standard LE5 states should be included in promotional materials and catalogs whenever the LER is provided. DOE believes that identification of the luminaire category is essential to ensure that LER values are compared between similar products, and not across product types. DOE expects to consider whether deficiencies such as the foregoing persist when making its final determination.

The NLC program report recognizes that the actual efficacy for a luminaire once in operation may differ from the original rating as a result of a substitution of one or more component parts (for example, replacement lamps or ballasts different from those for which the luminaire was rated). The NLC report states that manufacturers will inform their customers, through printed matter and other means, that a luminaire's LER will be altered if any of the luminaire's component parts are changed or substituted.

In sum, the NLC program contemplates that manufacturers will present the LER information as befits their own promotional styles, and that the Collaborative will reinforce the importance for manufacturers to include in their materials the information identified in NEMA Standard LE5.

Finally, with regard to the broader publicity and education activities directed at customer/users, the Department believes the Collaborative has made good progress in launching an energy information program for luminaires. The NLC's plan for disseminating information on the use of the LER system is wide-ranging, including magazine and newsletter articles, presentations at conferences, networking with other organizations, and international publicity. Major education and sales centers for the lighting industry are planning to include presentations on the LER. A NEMA Executive Roundtable meeting with the senior executives of fixture companies was held on August 30, 1995, to discuss the actions that are needed in support of the voluntary program. Presentations have also been made at Lightfair, the largest lighting trade show in the United States, and at the Illuminating Engineering Society of

North America Annual Conference and Board meeting. The NLC states that an overview brochure on the luminaire energy information program will be prepared for widespread distribution by the National Lighting Bureau/NEMA, and articles are planned for trade association, research, and energy journals. The International Association of Lighting Designers, a member of the Collaborative, has agreed to track such articles and press coverage. The program states that IALD will develop a survey on awareness of the program to be used by manufacturers' representatives, distributors, and specifiers.

The Collaborative reported that the LER program is also receiving international attention. It is being reviewed for adoption and expansion by the Canadian Standards Association, and contacts have been made with Japanese, Australian, and New Zealand lighting organizations.

#### *e. Manufacturer Participation*

The success of the voluntary luminaire program will ultimately depend on the degree of manufacturer participation. Participating manufacturers agree to test their luminaires according to the procedures set forth in NEMA Standard LE5, to convey the resulting energy efficiency information in a style of their own choosing that complies with the specifications in NEMA Standard LE5, and to promote customer understanding of the new information program. As a first step in assessing the level of participation, the Collaborative has proposed that 25 percent of the industry-wide shipments (measured in dollars) of the products covered by the voluntary program will have energy efficiency information published in the supporting sales literature by one year from the date of publication of the Department's June 15, 1995, Federal Register notice outlining the evaluation criteria for the program. As an interim measure for data collection, the Collaborative has designed a statistical survey form which has been circulated to manufacturers for tracking this information. The program provides that the items in this survey will become part of the Bureau of Census' MA-36L report beginning in 1996, although, in fact, the items were included starting in the 1995 MA-36L report.

To date, the Collaborative has submitted to DOE examples of new catalog and other product literature in which four major manufacturers have included LER information, along with descriptions of the plans of two other major companies, and a summary of the

industry's outreach to publicize the LER rating system. The Department finds that these efforts constitute a good beginning for participation in the luminaire program, and awaits the results of the first survey in order to assess formally the extent of manufacturer participation. It is expected that aggregate totals of the four manufacturers participating thus far will exceed the initial target of 25 percent participation.

In future years, expansion of the program is anticipated. A member of the Collaborative suggested goals for future participation levels, these goals were refined by the Collaborative, and DOE, in its June 1995 Federal Register notice, stated that it expects the voluntary program to achieve these levels of participation. They are as follows: that 50 percent of industry-wide shipments of the products would be covered by the voluntary program in 2 years from June 15, 1995, and approximately 75 percent in 3 years. The Collaborative believes that competition among manufacturers will encourage the rapid incorporation of LER energy efficiency information by other companies. DOE continues to expect the program to achieve the foregoing levels of participation when fully implemented.

#### *f. Market Data*

In order to provide a reporting format to track luminaire efficacy, the NLC proposed two additions to the Bureau of Census MA-36L report used for tracking luminaire sales data, and the Bureau approved and incorporated these changes beginning in 1995. The first addition reports the percentages of fluorescent luminaires sold with magnetic or electronic ballasts. Ballast type is a first-order indicator of luminaire efficacy (LER). The other addition reports quantities and values broken out by number of lamps. Since 4-lamp luminaires tend to have lower luminaire fixture efficiencies than 2- or 3-lamp luminaires, number of lamps per luminaire is a second-order indicator of LER. These new data can assist the Department in forming a baseline from which the efficacy of luminaires on the market can be estimated over time. Since the second addition to the Bureau of Census report uses the categories of luminaires covered by the voluntary luminaire program and specified in NEMA Standard LE5, the resulting data can also be used to track the percentage of the total fluorescent luminaire market that consists of products covered by the testing and rating program. This would verify that the LE5 categories cover at least 80 percent of the fluorescent luminaire market.

The Bureau of Census data for 1995 will be released in July 1996. The Department expects that the NLC will continue discussions of expanding the data related to luminaire efficacy that is reported through a format such as the Bureau of Census. Such reporting could possibly include an average LER by luminaire type.

#### g. Continuation of the Program

The Department finds that the Collaborative has established a workable administrative framework for continuing the voluntary program and incorporating new products. NEMA will continue as the administrator of the Collaborative and the voluntary program. The Collaborative will continue to meet periodically to assess and update the program, to insure consensus on the direction of the program, and to address any concerns expressed by the Department.

The process for evaluating which new products should be added to the list of covered products in the voluntary program, and which should be deleted, will be incorporated with the regular reassessment by NEMA of its standards. All NEMA standards are routinely reviewed within five years after their publication date for possible revision, renewal, or rescission. Since NEMA Standard LE5 was first published in 1993, the fluorescent luminaire testing and rating method will be reviewed by 1998 and updated as appropriate, with consensus review by the Collaborative. The review of the entire standard will include the reevaluation of such statistical data as the 1993 average commercial sector electricity rate specified in the original version of NEMA Standard LE5.

NEMA is already developing an HID industrial standard and a downlight luminaire standard related to the LER. The NLC will be part of the review process once these are in draft public review form. The NLC report also states that 2'x2' and 1'x4' fluorescent luminaires, types that are rapidly gaining in market share, will be considered for addition to the voluntary program.

Collaborative members believe that the program will also achieve self-sustaining continuity through the marketplace, as the LER energy efficiency rating adds competitive value to rated products, and manufacturers which have not included this information find themselves at a competitive disadvantage.

#### IV. Determination

Based on the Department's evaluation of the NLC's program structure, current

implementation, and future plans, the Department believes that the critical elements of a voluntary national testing and information program to provide energy efficiency information for luminaires are already operational or under development, and that the program is likely to mature and expand so as to meet all of the requirements for such a program in Section 126(a) of EPCA. Key elements of the program now in place include the LER rating method to measure the energy efficiency of luminaires, test procedures to be performed in accredited laboratories, a core organizational group in the National Lighting Collaborative with administrative services provided by NEMA, a list of luminaires covered in the initial phase of the program, the identification of the energy efficiency information to be disseminated by manufacturers, and the methods for such dissemination. Other measures, such as planned publicity initiatives for the program and a market data reporting system, have made good progress and are expected to be completed within approximately two years.

However, because the program is still in the initial stages of implementation, the Department has an insufficient basis for making a final determination. Based on the current design of the program and the Collaborative's plans, it is anticipated that the program will cover, within three years, product categories representing 80 percent of the fluorescent luminaire market, and approximately 75 percent of the unit sales within these categories; assure that each LER rating derived from testing will be generally valid for the tested products; make the luminaire marketplace aware of the voluntary program; and expand the program to include downlights and HID industrial luminaires. In order for the Department to evaluate progress in these areas, close collaboration between the Collaborative and the Department should be maintained to facilitate exchange of information and program updates. If the Collaborative provides data and documentation to DOE by July 15, 1998, on the achievements of the NLC program, including information as to whether the above objectives have been met, then DOE can make its final determination.

For these reasons, it is hereby determined provisionally that the National Lighting Collaborative's program is consistent with the objectives of Section 126(a) of EPCA. If the objectives set forth in the preceding paragraphs have been completed, DOE will make a final determination that the program meets

the statutory objectives. DOE expects to make a final determination no later than December 15, 1998.

#### V. Relationship to Mandatory Energy Conservation Programs

Certain aspects of the NLC's voluntary program for luminaires involve matters covered by mandatory energy conservation test procedures, labeling, and standards imposed under the Energy Policy and Conservation Act (EPCA), as amended. For example, both the luminaire efficiency rating in the NLC program and the mandatory requirements for lamps involve consideration of the light output of lamps.

The NLC program, however, is designed to provide a consistent approach to the testing and dissemination of energy efficiency information only for luminaires. It is not intended to affect mandatory requirements for other products. Therefore, to the extent DOE approves the NLC program as meeting the objectives of Section 126 of EPCA, such approval does not indicate any view by DOE as to the appropriate content of any mandatory program. Moreover, neither the provisions of the voluntary program, nor actions under that program, in any way govern any mandatory requirements imposed under EPCA.

Nevertheless, DOE hopes that any future modifications in the NLC voluntary program can be sufficiently well coordinated with mandatory testing and labeling requirements to minimize any conflicts that might place added burdens on the manufacturers, retailers, or buyers of the affected lighting products.

Issued in Washington, DC on March 6, 1996.

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[FR Doc. 96-6294 Filed 3-14-96; 8:45 am]

BILLING CODE 6450-01-P

#### Office of Energy Research

#### Energy Research Financial Assistance Program Notice 96-12; Natural and Accelerated Bioremediation Research Program—Science Team Leadership

**AGENCY:** U.S. Department of Energy (DOE).

**ACTION:** Notice inviting cooperative agreement applications.

**SUMMARY:** The Office of Health and Environmental Research (OHER) of the Office of Energy Research, U.S.