

May 30, 2003

The NEMA Lamp Section submits the following comments in response to Energy Star's request for stakeholder input on the second draft revision to the CFL program commitments and energy-efficiency criteria, dated April 15, 2003.

In addition, we thank Energy Star and the Department of Energy for conducting a well-organized and successful stakeholder meeting on April 29. Special acknowledgements are due to Ronald Lewis for his thorough review of the current draft.

Submission of Shipment Data

Biannual submission of shipment data is and must be a condition of participation in the program. Without this data, the Department has no means of gauging the success of the program. Energy Star should set a deadline for those partners that do not conform to data submission requirements and remove them from the program if they do not provide the required shipment data.

Partners should be allowed 45 days after the close of each six-month reporting period (January-June, July-December) in which to submit shipment data to Energy Star for regular, covered, reflector and adapter-type (circle or square) products. Accordingly, data submission deadlines would be February 15 and August 15.

As discussed at the April 29 meeting, manufacturer data must be subject to confidentiality rules. A third party, such as a contractor to Energy Star, must aggregate the data. Energy Star should allow multiple partners to submit aggregated shipment data through a trade association if partners prefer to use this option.

All program participants should receive aggregated (sanitized) data by product category.

NEMA offers to assist DOE or its contractor in designing the data reporting spreadsheet template for Energy Star.

Colored Lamps

Colored lamps or other niche products should not be added to the program at this point. Weighed against the resources that would be expended, NEMA believes there would be little benefit to incorporating them now. If colored lamps or other niche products should be added to the program at a later date, they would require the development of appropriate criteria.

Bug Lamps, Candelabra Lamps

NEMA urges “bug lamps” and candelabra lamps not be included in the program until appropriate criteria are developed, perhaps in version 4.0.

Correlated Color Temperature (CCT)

The new proposal offers no improvement over the existing specification. It does not address the fundamental issue of color variability. NEMA believes that the consumers’ lack of understanding of CCT is a point of confusion that needs addressing in future versions.

NEMA urges Energy Star to maintain the existing standard until a new standard is developed for version 4.0 of the criteria.

Energy Star should either not enforce CCT in the interim, since there are no assessment criteria in the current specification, or add tolerances to the 2700-3000K range to acknowledge that both are nominal specifications and were not meant to be the limits for individual sample lamps. For example, tolerances could be +/- 200K on the extreme edges, or all individual sample lamps would be required to fall in the range of 2500-3200K to meet the specification, as currently required in the Energy Star specification for Residential Lighting Fixtures.

NEMA offers to assist DOE and its contractor in developing an improved color appearance specification for version 4.0 of the criteria. Such a new specification could include color oval criteria as found in ANSI standard C78.376, as well as user-friendly color appearance descriptions.

Efficacy

NEMA confirms that the acceptable efficacy and lumen output measurement error tolerance noted in footnote 1 on page 5 of the second draft is -3% (minus 3 percent) and not minus 3 lumens per watt (LPW).

Energy Star should maintain existing (version 2.0) LPW minimum requirements for version 3.0 of the criteria. As noted above, we suggest and offer to develop improved color appearance requirements for version 4.0, which could be based on ANSI color ovals. Since improving color specifications may impact realistic minimum efficacy margins, new efficacy criteria should only be evaluated once improved color appearance requirements have been established.

In addition, in order to preserve a broad range of CCT product categories, we recommend that lamp efficacy for all colors be determined by the average of all 10 samples measured (rather than the “average of the lesser of the lumens per watt measured in the base-up and base-down positions” suggested in the current draft). This will allow lamps in the range above 5000 K to continue in the Energy Star program.

Dimming

As discussed at the April 29 meeting, we agree that the next version of the criteria needs a test procedure and minimum dimming range, as per the Energy Star specification for Residential Light Fixtures.

Power Factor

We agree with the current draft proposal for power factor, which is the same as the current criteria.

Transient (Line Surge) Testing

The standard reference should be updated. The updated and correct IEEE Standard reference is IEEE C62.41-1991 (01-May-1991).

As discussed at the April 29 meeting, manufacturer self-verification for this test must be restored to the criteria because NVLAP does not certify to this test. There was general agreement at the April 29 stakeholders' meeting on this point.

Since the current Energy Star specification does not fully describe the requirements necessary for assessment, we urge the program to consider adding the following, from the revision to ANSI C78.5 that is currently proceeding:

Transient Protection - ANSI-IEEE C62.41-1991. Class A1 minimum with the voltage increased to 2500V peak. The line transient test shall consist of 7 strikes of a 100kHz ring wave, 2500V peak level, for differential mode. The transient generator effective output impedance shall be 30 ohms maximum and the peak current shall be 83A minimum.

Note: This proposed language, which includes an increase in transient withstand capability from 2000 to 2500 V, is expected to be adopted.

Electromagnetic Interference

In accordance with its stated intent to revise the criteria to improve product quality, we urge Energy Star to change this requirement to read: "Compliance with FCC 47 CFR including Part 2 (Equipment Authorization) and Part 18 (Technical Standards and Emission Limits) for consumer RF Lighting equipment."

Compatibility with Controls

We urge Energy Star to maintain the requirement that 'incompatibility' issues (i.e., in the negative) must be stated on the package and to be consistent with UL1993. It is not practical to confirm compatibility (i.e., in the positive) with every control device that is or may be in the marketplace.

Use of the Term "Warranty"

As discussed during the April 29 meeting, we urge Energy Star to give partners the freedom to use the term "Limited Warranty" instead of "Warranty". Also, partners should be able to use the term "Guarantee" as long as it is used in addition to (not in lieu of) one of the terms "Warranty" or "Limited Warranty". To address the potential use of these products in commercial facilities, we recommend the current one-year warranty requirement be maintained.

Longevity Life Claims in Terms of Years of Service

In order to better inform the consumer and minimize consumer confusion, NEMA proposes that partners' maximum product life claims in terms of years of service should be based on usage of "no less than 3 hours per day."

Incandescent Equivalency

Following on the April 29 discussion on this point, NEMA confirms that the CFL/Incandescent Equivalency Table on page 8 of the draft criteria is not for comparing covered, globe or reflector CFL products against globe, reflector, or decorative incandescent lamps.

We urge Energy Star to require – and to include clear language in the criteria for this requirement – that if an equivalency claim is made for a CFL product against a typical A-line incandescent lamp, that the table on page 8 applies and must be used correctly and accurately.

Initial Qualification - Interim Life Test

To allow for practical anomalies that accompany the lamp handling and potential random failures associated with extended testing, NEMA urges that manufacturers have the option of using two separate sets of samples for the life test and the lumen maintenance test. Thus, the life testing requirement would be more fairly applied to lamps not subject to additional handling needed for lumen maintenance testing.

Manufacturers not wishing to accept the burdens of such additional testing, and who use a single set of lamps for both interim life and maintenance testing, can submit an analysis of any failed lamps with DOE having discretion to allow up to two mortality failures without automatic disqualification, depending upon the analyzed mortality failure modes reported. Discretion would extend to failures related to handling but not to ballast burn out or depletion of lamp electrode emission mix.

NEMA believes that allowing these two options will provide ample protection for consumer satisfaction while not penalizing manufacturers for failures that have no relevance to the actual application of CFLs in the field. As currently stated in the Draft, the proposal is too onerous in that it does not adequately consider the potential for a handling-induced failure or even one random statistical failure.

Since DOE plans to establish additional new criteria (version 4.0) in 12-18 months, the entire subject of life and early mortality can be reviewed again at that time.

Full Qualification - Final Life Test Report Due Date

NEMA recommends that Energy Star ask manufacturers to submit, along with their interim (40%) life test results, their anticipated date when full life test results will be available (or at least life test results sufficient to justify the claimed rated life). Manufacturers would then be given 30 days from that date to submit the life test results to Energy Star, to reflect the practical realities associated with compiling and submitting the reports.

Retired Products

As discussed during the April 29 meeting, to avoid confusion, NEMA recommends strongly that products that have earned the Energy Star logo but have been retired by the manufacturer should not be listed on the Energy Star website as "unqualified" while inventory is likely to exist in stores. Therefore, NEMA urges Energy Star to institute 3 categories on its product list: Qualified, Unqualified, and Retired. The meaning of Retired would be: "Product was properly qualified, is no longer manufactured, but may still be available". Energy Star should automatically remove models from this Retired list after 12 months. This one-year period should allow stores to sell-off retired products.

Reflector Products

During the April 29 meeting, utility representatives referred to failures of Energy Star labeled reflector CFL products that occurred during some recent surveillance testing. We would appreciate receiving more information about these reported failures.

We believe that it is premature to remove the R-CFL category from Energy Star specification since version 3.0 will now require initial testing to 40% rated life, which would disqualify the several examples discussed in the April 29 meeting.

In order to improve testing of these products, we offer to assist DOE and its contractor in developing a realistic stress test that could be included in a future Energy Star specification for reflector CFL products.

PRC Product Standard

We are currently reviewing the text of the People's Republic of China's specification for CFLs from the China Certification Center for Energy Efficient Products, which was raised briefly at the April 29 meeting. We look forward to further discussion with Energy Star and the Department of Energy as to any implications of this document for version 4.0.

Effective Date

NEMA urges very strongly a further two-month delay in the effective date of version 3.0 from November 1 (agreed during the April 29 meeting) to January 1, 2004. This would conform to the Jan.-June shipment-data-reporting period we recommend above and minimize any additional burdensome requirements associated with having disparate dates. The January 1 date also allows manufacturers to complete their “in-process” development (and subsequent introduction) of Energy Star products now in the pipeline.

Criteria SOP

NEMA suggests that Energy Star should, in concert with stakeholders, develop a Standard Operating Procedure of specific pass/fail/follow-up decision rule criteria for key requirements (similar to the SOP for Energy Star Residential Fixtures). We believe such an SOP is necessary to ensure a documented basis for key decision making in the event of DOE or contractor staff turnover.

Testing Program Participation

We recognize and appreciate Energy Star’s focus in this draft on improving and ensuring the quality and reliability of CFLs that carry the Energy Star logo. In this vein, we recommend strongly that Energy Star institute a requirement that all Energy Star CFL program participants be required to financially contribute to an approved independent third-party verification and testing program, such as the Program for the Evaluation and Analysis of Residential Lighting (PEARL). This financial contribution should be based on the participant’s number of qualified products listed on the Energy Star website.

Thank you for your close consideration of these comments. We look forward to working with Energy Star further to improve Version 3.0.

End of NEMA Comments