



KYLE PITSOR

DOCKET	
05-AAER-2	
DATE	FEB 7 2006
RECD	FEB 9 2006

February 7, 2006

Commissioner Jackalyne Pfannenstiel
Commissioner Art Rosenfeld
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

**RE: Proposed Amendments to Appliance Efficiency Regulations: CEC Docket
Number 05-AAER-2: Metal Halide Luminaires**

Dear Commissioners Pfannenstiel and Rosenfeld:

The NEMA Luminaire Product Group submits the enclosed comments and recommendations on the proposed 45-day language and staff report issued in January 2006 on the referenced matter. We look forward to discussing our recommendations at the February 14, 2006 public hearing of the Energy Subcommittee, and urge favorable consideration be given to our views.

Very truly yours,

A handwritten signature in cursive script that reads "Kyle Pitson".

Enclosure

National Electrical
Manufacturers Association
www.nema.org

Enclosure
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NEMA Luminaire Product Group Comments on Potential Regulation of Metal Halide Luminaires

The NEMA Luminaire Product Group submits the following comments on the draft 45-day language for Metal Halide (MH) Luminaires. We incorporate by reference our previous comments submitted at part of the 2005 workshop process.

1. Non-probe start MH luminaire requirements:

- a. Definition of vertical operation – As noted in the NEMA Lamp Product Group comments, there is a concern in regulating products to require non-probe start ballasts that are intended to be aimed at any angle. These products require universal burn lamps. As noted in the Acuity Brands Lighting comments of 7/05, there is very limited availability of universal burn lamps. The current definition indicates that ‘vertical’ is a luminaire “rated” to operate +/- 15 degrees from vertical. A floodlight is rated for use +/- 15 degrees from vertical as well as any other angle.

We recommend that the 45-day language definition clarify that ‘vertical’ is a luminaire rated to operate only within +/- 15 degrees from vertical.

- b. For the January 1, 2008 effective date, we recommend that the CEC regulate only horizontal and vertical lamp orientations for the same reason as item 1a.

2. Electronic ballasts:

- a. Reliability – NEMA member company testing of product have found a number of issues regarding reliability. Many of the products that were originally on the market have been removed from the market. The products have been used in very controlled environments – typically normal temperature and good power quality where the ballast casing can allow substantial ventilation. NEMA members have run a number of lab tests of commercially available ballasts and find that many of these products do not meet UL temperature requirements when installed in a traditional ballast housing.
- b. Data analysis of CEC evaluation – It appears that the current CEC evaluation has been based solely on a survey of published ballast manufacturer data related only on ballast efficiency. There has been no confirmation that the ballasts used in this study are still commercially available, what the thermal performance of the ballast is when installed in a luminaire ballast housing, and how the ballasts perform with variable power quality.

NEMA recommends the CEC undertake an independent technical study of ballasts that are commercially available evaluating ballast efficiency, thermal and power quality issues. This study will help determine the scope of what should be regulated at this time and may modify the exempted MH luminaire definition. The California Lighting Technology Center would be more than capable to conduct this testing. The NEMA Lighting Systems Division members are open to evaluate partial funding of such a study, if required.

- c. Exemptions - It is our opinion that outdoor lighting and high temperature applications should both be exempt – depending on the results of this study in 2b. We note that the interior temperature of outdoor HID products routinely hits 90 degrees C, whereas the electronic ballasts typically have a 75 degree C limit. Such a change in scope would allow CEC to proceed with regulations that will drive increased use of MH electronic ballasts, but would reduce the variables likely to cause reliability issues – specifically high ambient temperature (indoor and outdoor) and power quality. NEMA can provide recommended language and test references once the study in 2b has been completed.
- d. Timing for regulation – Depending on the results of item 2b, luminaire manufacturers will have to redesign ballast housings, conduct thermal tests and submit for UL product safety approval. If the scope of the CEC MH regulation is broad, this could literally require hundreds of tests for each luminaire manufacturer – compounding into several hundred submittals for UL approval. This is a very timely process that has been targeted at 15-18 months if the manufacturer labs and UL focused on nothing else. A more likely situation would be 2-3 years given product development, testing and UL priorities. Again, a more narrow scope of regulation will help increase the use of electronic MH ballasts in the market place and will allow for a reasonable product redesign, testing and certification process. NEMA urges the CEC to consider the time required for these necessary product changes, testing, and certification in determining the timing and effective dates of this potential regulation.