Setting Standards for Excellence

February 3, 2003 Docket # 01-BSTD-1

Robert Pernell, Commissioner, Presiding Member
Arthur H. Rosenfeld, Commissioner, Associate Member
2005 Update Residential & Nonresidential Building Standards Proceeding
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Dear Messrs. Pernell and Rosenfeld:

NEMA appreciates the opportunity to comment on the California Energy Commission 2005 Update Residential & Nonresidential Building Standards, Title 24. These comments are based on the February 2003 Workshop draft 3 version.

Section 100 Scope, Item 100 (h) Certification Requirements for Manufactured Devices. Delete “4. Fluorescent lamps ballasts”. These are federally preempted products that meet federal energy efficiency standards pursuant to the Energy Policy and Conservation Act.

Section 100 Scope, Item 100 (h) Certification Requirements for Manufactured Devices. Delete “7. Lighting Control Devices”. There are no requirements for lighting control devices in Title 20.

Section 101 Definitions, “AUTOMATIC MULTI-LEVEL DAYLIGHTING CONTROL” Continuous dimming should be added. (Please see our comments of October 30, 2002)

Section 101 Definitions, “LAMP EFFICACY” As we have stated before (please see my testimony of November 18, 2002) we would very much prefer that national definitions be used and that CEC not “improve” on these. In this case, the CEC definition is not the same as in federal law, and in the case of medium base compact fluorescent lamps would be incorrect as the lamp efficacy does in this case include the ballast. Another example of this is the definition of “LUMINAIRE”. If CEC wishes to provide clarification, then it could be done in a means that separates the definition from the clarification, rather than putting the clarification in the definition. International standards do this by using different font sizes.

Section 101 Definitions “MULTI-LEVEL LIGHTING CONTROL” Continuous dimming should be added. (Please see our comments of October 30, 2002)

Section 119 (h) 5 “MANDATORY REQUIREMENTS FOR LIGHTING CONTROL DEVICES” Delete “sunrise and sunset”. (Please see our comments of October 30, 2002)

Section 146 PRESCRIPTIVE REQUIREMENTS FOR INTERIOR LIGHTING We believe this entire section should be deleted or seriously reconsidered. If the lighting power density (watts per square foot) is satisfied a lighting designer should have flexibility to design a cost effective system that satisfies customer expectations. For example, track lights are banned, whereas these are effective design features in numerous applications such as retail, museums and restaurants. (For example, this weekend I estimated that a high-end retail department store I visited at a local mall had over 500 track lights on the second of two floors of the store.) The reason for this ban may be the observation in a previous hearing from CEC consultants that the previous requirement for track dimming could result in incompatible track/luminaire combinations, but a solution to that could be to revise the dimming requirements or adding appropriate cautions. Another ban is on Edison base fixtures, which are very cost effective and should be allowed if the lighting power density goals are satisfied. The section dictates spacing of luminaires, which again is a design issue. The section also virtually bans task lighting, which some designers believe is an effective means to reduce lighting electrical load.

Table 146-A LIGHTING SYSTEMS PERMITTED UNDER SECTION 146 (A) The “Exit sign” “Maximum Lamp Watts” entry should be “Rated 5 watts or less *per face*”, not “Rated 5 watts or less”. 5 watts per face is the 2002 Title 20 energy efficiency standard. CEC made this correction some places in the Title 24, but all places the standard appears. (Please see our comments of December 4, 2002)

Section 147 REQUIREMENTS FOR OUTDOOR LIGHTING

- NEMA has offered assistance in the development of these standards since June 2001.
- After several requests, we have not been provided data to verify the applicability of the models. The Title 24 Lighting Power Density values are quite different from the ASHRAE proposed numbers. This variation causes us to believe that more studies are required. From the limited information that has been available in the previous reports (June 2002), there are a number of questions with regard to the applicability of the pole height, lamp wattage and pole spacing. We believe the November transcripts show that Jim Benya made a commitment to provide his parking lot models.
- The commission has provided no verification that the proposed standards are "technologically feasible and cost effective" as required in SB5x.

- The commission has again provided very limited time to review and comment on these standards.
- The California LPD maximum values are based on IESNA minimum illumination recommendations. This does not allow for any flexibility to account for unique design requirements or safety and security concerns.

Please see our comments of September 21, 2002 to Commissioner Rosenfeld for additional outdoor lighting comments.

Table 147-A LIGHTING POWER ALLOWANCES FOR SPECIFIC APPLICATIONS

The landscape category was not in the June outdoor lighting draft. This application was added in the November Title 24 draft as Landscape Lighting. In the February 2003 draft, this has changed drastically and is now called "Landscape and Ornamental Lighting". There is no explanation provided as to how the category differs and why the watts per square foot are so dramatically reduced as illustrated below.

Page 129 - table 147A in the February 2003 draft (this information was in Table 133-C in the November 18, 2002 draft)

Zone	Nov 2002 draft	Feb 2003 draft
1	0.25 LPW	not allowed
2	0.50	0.01
3	1.00	0.02
4	2.00	0.04

Again, thank you for the opportunity to comment. I look forward to working with you further on the 2005 amendments under development.

Sincerely yours,

Edward Vrany

Director, Energy Policy

cc: Bill Pennington, CEC staff