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California Energy Commission Dockets Unit 1516 Ninth Street, MS 4 Sacramento, CA 95814-5512 Phone: 415-307-5106 Fax: 805-781-0816 RickMiller@RNM-Eng.com



# Re: Docket #14-BSTD-01 Proposed Revisions to 2016 Title 24, Part 6 Suggestion to Modify NA7.6

I respectfully submit the following comments for revisions to the California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6.

> **COMMENT:** Provide a distinct test for each of the five control strategies given in Sec 130.1 and list these tests in the same sequence as the strategies are given in Sec 130.1

# **Nonresidential Appendix NA7.6**

# NA7.6 Lighting Control Acceptance Requirements

Lighting control acceptance testing shall be performed on:

(a) On/Off Controls complying with Section 130.1(a)

(b) Multi-Level Controls complying with Section 130.1(b)

(<u>c</u>b) Shut-off Controls complying with Section 130.1(c)

(da) Automatic Daylighting Controls complying with Section 130.1(d)

(e) Demand Responsive Controls complying in accordance with Section 130.1(e).

#### NA7.6.1 On/Off Controls Acceptance tests

#### <u>NA7.6.1.1</u>

Manual on/off: All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls. Each area enclosed by ceiling-height partitions shall be independently controlled.

All lights can be turned on and off by their respective area control switch Verify the switch only operates lighting in the ceiling-height partitioned area in which the switch is located

# <u>NA7.6.1.2</u>

A. Be readily accessible; and

B. Be operated with a manual switch that is located in the same room or area with the lighting that is controlled by that lighting control; and

# C. If controlling dimmable luminaires, be a dimmer switch that allows manual ON and OFF functionality, and is capable of manually controlling lighting through all lighting control steps that are required in Section 130.1(b).

**EXCEPTION 1 to Section 130.1(a)2:** In malls, auditoriums, retail and wholesale sales floors, industrial facilities, convention centers, and arenas, the lighting control shall be located so that a person using the lighting control can see the lights or area controlled by that lighting control, or so that the area being lit is annunciated.

**EXCEPTION 2 to Section 130.1(a)2:** Public restrooms having two or more stalls may use a manual switch not accessible to unauthorized personnel.

#### <u>NA7.6.1.3</u>

A. Other lighting controls may be installed in addition to the manual lighting controls provided they do not override the functionality of controls installed in accordance with Section 130.1(a)1, 2, or 4.

#### <u>NA7.6.1.4</u>

- A. General lighting shall be separately controlled from all other lighting systems in an area.
  B. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less.
- C. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled.

#### COMMENT:

Test procedures need to be written to verify compliance with Section 130.1(a)1, 2, 3, and 4, including verification of Exceptions.

#### NA7.6.2 Multi-Level Controls Acceptance tests

The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall provide multi-level control that meets the following requirements:

#### <u>NA7.6.2.1</u>

1. Lighting shall have the required number of control steps and meet the uniformity requirements in accordance with TABLE 130.1-A; and

#### NA7.6.2.2

2. Multi-level lighting controls shall not override the functionally of other lighting controls required for compliance with Sections 130.1(a), and (c) through (e).

#### <u>NA7.6.2.3</u>

3. Dimmable luminaires shall also be controlled by a manual dimmer according to Section 130.1(a)2C. A. Manual dimming meeting the applicable requirements of Section 130.1(a)

#### COMMENT:

Test procedures need to be written to verify compliance with Section 130.1(b)1, 2, and 3, including verification of Exceptions.

COMMENT: Renumber the existing test procedures as indicated below.

# NA7.6.32 Shut-off Controls Acceptance tests

Comments on the testing of Shut Off Controls are forthcoming.

# NA7.6.41 Automatic Daylighting Controls Acceptance tests

Comments on the testing of Automatic Daylighting Controls are forthcoming.

### NA7.6.53 Demand Responsive Controls Acceptance tests

Comments on the testing of Demand Responsive Controls are forthcoming.

Thank you for your consideration of these comments.

Respectfully submitted,

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