



Building for the Next Generation

Date: 3/27/15

Commissioner Andrew McAllister
California Energy Commission
Dockets Office, MS-4
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California Energy Commission

DOCKETED

15-BSTD-01

TN # 75545

MAR 30 2015

RE: Draft 2016 Building Energy Efficiency Standards (BEES), **Docket # 15-BSTD-01**

Dear Commissioner McAllister:

The following are comments regarding the 2016 Building Energy Efficiency Standards:

1. We fully support and concur with the comments provided by the California Department of General Services (TN #75238) and the AIA California Council (TN #75491) with regards to acceptance of a licensed professional engineer or a licensed architect for the purposes of the Design Review meetings/certificates/etc. This proposed revision is in accordance with Section 6737 of the Professional Engineers Act (California Business and Professions Code).
2. We fully support and concur with the comments provided by the California Building Industry Association (TN #75480), ATCO Rubber Products (TN #75477) and others in objection to the JCEEP proposed amendment which seeks to limit the use of flexible duct. The existing installation guidelines, inspections and testing procedures provide sufficient regulation to ensure that satisfactory duct systems are installed when they are done in accordance with these regulations.
3. Section 130.1(b) defines the requirements for spaces which shall receive Multi-Level Lighting Controls. We suggest an additional exception to this section which would be similar to Exception #2 to Section 130.1(a)2. The proposed language is as follows:
EXCEPTION 3 to Section 130.1(b): Public restrooms having two or more stalls which use a manual switch not accessible to unauthorized personnel shall not require Multi-Level Lighting Controls.

This exception would serve to remove the unnecessary addition of dimming controls (or step controls) to a lighting system which cannot be adjusted by the user. The function of this particular space does not support variable lighting levels, further; since the user has no access to the controls for the space the existence of these controls serves no purpose. This section currently provides language which restricts the Multi-Level Lighting Control requirements to spaces with a connected load of 0.5 watts per square foot or greater. This prescribed power density would cover many public restrooms, however, there are instances where a typical design would result in a somewhat higher density. The addition of this exception would help to resolve this issue while still meeting the spirit of the regulations. As an alternate we would support the revision of the connected load as stated such that spaces with a connected load of 0.6 watts per square foot or less would not be subject to Multi-Level Lighting Controls.

4. Section 130.1(d) defines the requirements for spaces which shall receive Automatic Daylighting Controls. While we support these requirements and their application in general, we feel that the resulting controls schemes for some particular spaces result in unnecessary added complexity and cost which are not supported by the associated energy use reduction. We suggest an additional exception to this section, the language is as follows:

EXCEPTION 4 to Section 130.1(d)2: Automatic Daylighting Controls shall not be required in a Primary Skylit Daylit Zone or Primary Sidelit Daylit Zone which contains only one luminaire with a connected load of less than 100 watts and when the connected lighting load contained in this Daylit Zone is less 15% of the entire lighting load of the room.

This exception would serve to remove the addition of automatic daylighting controls for single fixtures in large spaces. For example a common classroom building/space has a rectangular shape and is 24' wide x 40' long. There are typically 2 columns of light fixtures with 4 fixtures in each column running in the 40' dimension. The front and rear of the building are typically the 24' wide portions; the front typically has a single 8'x4' window and a 3'x7' door while the rear typically has a single 8'x4' window. This configuration results in a classroom which has a small Primary Sidelit Daylit Zone in the front of the room and a small Primary Sidelit Daylit Zone in the rear of the room which leaves a vast majority of the room outside of the daylit zones. Each of these primary daylit zones contains only a single fixture and each of these daylit zones are separated by more than 20'. If each fixture in the room has a connected load of greater than 60 watts the combined wattage in the two daylit zones would exceed the 120 watt allowance which is permitted in Exception 1 to 101.1(d)2. Adding this proposed exception would help to control costs and system complexity in spaces where the benefits of the automated lighting controls are negatively impacted by the relatively small scope of fixtures included in the control scheme.

5. Table 140.6-B provides the allowable Lighting Power Densities when using the Complete Building Method of lighting compliance. This table has been revised in the proposed 2016 standards and a result of these revisions is the reduction in power density from 0.60 to 0.50 watts per square foot for the "All Other Buildings" category. We believe that this revision is in error and that it does not align with the revisions made to Area Category Method (Table 140.6-C). If using the Area Category Method there is only one space type, other parking garages, which has a density of less than 0.60 watts/SF. Electrical/Mechanical/Telephone Rooms now have a density of 0.55 watts/SF. The Whole Building Method exists to simplify the compliance process by blending the expected densities for a building type into a single value. By making this value lower than the lowest possible value which could be obtained by using the Area Category Method the result is a significant penalty to these miscellaneous building types. We suggest returning the power density to 0.60 watts/SF for the "All Other Buildings" category in Table 140.6-B.

Thank you for your time and consideration.

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Director of Design Services