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## **2025 Energy Code Update Rulemaking**

*Additional submitted attachment is included below.*



April 25, 2024

CEC Docket: 24-BSTD-01

Re: 2025 45 Day Title 24 Part 6 Energy Standards – 2<sup>nd</sup> Docketed Letter

Here are a few areas in which the Multifamily chapters need revisions due to errors:

### **Multifamily Subchapters**

1. **§160.2(c)8A:** The Class 1 air description does not match what is supported in §120.1(g)1 (see below) and needs to be corrected to match.

A. Class 1 air is air with significant contaminant concentration, significant sensory-irritation intensity or offensive odor. Recirculation or transfer of Class 1 air to any space shall be permitted; [ASHRAE 62.1:5.136.3.1]

§120.1(g)1:

1. **Class 1 Air** is air with low contaminant concentration, low sensory-irritation intensity or inoffensive odor. Recirculation or transfer of Class 1 air to any space shall be permitted; [ASHRAE 62.1:5.136.3.1]

2. **160.5(b)4B:** After the proposed 2025 changes, the highlighted text below became hard to understand:

B. **Multi-level lighting controls.** The general lighting of any enclosed area space 100 square feet or larger with a connected lighting load that exceeds greater than 0.5 watts per square foot shall provide with multi-level lighting controls. The multilevel lighting controls shall provide and enable continuous dimming from 100 percent to 10 percent or lower of lighting power that allow the level of lighting to be adjusted up and down to achieve illuminance uniformity. ~~The multi-level controls shall:~~

To make sense grammatically, change the highlighted text from:

“... load that greater than 0.5 watts per square foot shall provide with multi-level lighting ...”

To:

“... load greater than 0.5 watts per square foot shall be provided with multi-level lighting ...”

3. **160.9(a) General Requirements**

Section 160.9(a) talks about electric-ready requirements in 160.9(a) through (e), but they actually go to 160.9(f). Change the circled “(e)” below to “(f)”.

(a) General Requirements. Multifamily buildings shall comply with the applicable requirements of subsection 160.9. The building electrical system shall be sized to meet the future electric requirements of the electric ready equipment specified in sections 160.9(a) through (e). The building main service conduit, the electrical system to the point specified in each subsection, and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each electric ready appliance in accordance with the California Electrical Code.

4. **170.2(e)1:** “Item i” needs to be changed to “Item A”

(e) **Lighting.** Dwelling unit lighting shall meet the applicable mandatory requirements of Section 160.5(a). Common use area lighting shall meet the following requirements:

**Exception to Section 170.2(e):** Common use areas providing shared provisions for living, eating, cooking or sanitation to dwelling units that would otherwise lack these provisions may instead comply with Section 160.5(a).

1. **Interior common use area lighting.** A building complies with Section 170.2(e)1 if:

- A. The calculation of adjusted indoor lighting power of all proposed building areas combined, calculated under Subsection 170.2(e)2, is no greater than the calculation of allowed indoor lighting power, specific methodologies calculated under Subsection 170.2(e)4; and
- B. The calculation of allowed indoor lighting power, general rules comply with Subsection 170.2(e)3.

The prescriptive limits on indoor lighting power are the smaller of the actual and allowed indoor lighting power values determined in accordance with item i.

5. **170.2(e)2Biii:** Text refers to Section 170.2(e)1Aii, but there is no such section number. Should this refer to Section 170.2(e)2Bii or something else?

“e. The lighting control for the furniture mounted luminaire complies with all other applicable requirements in **Section 170.2(e)1Aii.**”

6. **170.2(e)2Bvi:** Text refers to Section 170.2(e)1Aii, but there is no such section number. Should this refer to Section 170.2(e)2Bii or something else?

“Only lighting wattage directly controlled in accordance with **Section 170.2(e)1Aii** shall be used to reduce the installed watts as allowed by **Section 170.2(e)1Aii** for calculating the Adjusted Indoor Lighting Power. If only a portion of the wattage in a luminaire is controlled in accordance to **Section 170.2(e)1Aii**, then only that portion of controlled wattage may be reduced in calculating Adjusted Indoor Lighting Power.”

7. **180.2(b)1Cii Exception 1:** U-factor should not be included in the exception

ii. Alterations that add fenestration and skylight area shall meet the total fenestration area requirements of Section 170.2(a) and the U-factor, RSHGC and VT requirements of Table 180.2-B.

**Exception 1 to Section 180.2(b)1Cii:** Alterations that add fenestration area of up to 50 square feet shall not be required to meet the total fenestration area requirements of Sections 170.2(a), nor the U-factor, RSHGC and VT requirements of Table 180.2-B.

## Single-family and Nonresidential Mandatory U-factor

We have expressed a few times now our concern about not allowing any flexibility for fenestration U-factors when considering fire rated requirements, and WUI. Here are a few code sections supporting the requirements for fire-rated windows, glass doors and skylights.

### Fire Code



#### Section 705 Door and Window Openings

##### 705.1 General

Where required when the building was originally constructed, opening protectives installed in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall be inspected and maintained in accordance with this section.

##### 705.2 Inspection and Maintenance

Opening protectives in fire-resistance-rated assemblies shall be inspected and maintained in accordance with NFPA 80. Opening protectives in smoke barriers shall be inspected and maintained in accordance with NFPA 80 and NFPA 105. Openings in smoke partitions shall be inspected and maintained in accordance with NFPA 105. Fire doors and smoke and draft control doors shall not be blocked, obstructed, or otherwise made inoperable. Fusible links shall be replaced promptly whenever fused or damaged. Opening protectives and smoke and draft control doors shall not be modified.

##### 705.2.1 Labeling Requirements

Where approved by the fire code official, the application of field-applied labels associated with the maintenance of opening protectives shall follow the requirements of the approved third-party certification organization accredited for listing the opening protective.

per NFPA 80

### Chapter 17 Fire Windows

#### 17.1 Windows.

**17.1.1 General.** This chapter shall cover the installation of fire windows.

#### 17.1.2 Testing.

**17.1.2.1** Fire windows shall be tested in accordance with NFPA 257 or UL 9, *Fire Tests of Window Assemblies*, for the required fire protection rating of the window opening.

**17.1.2.2** Fire windows shall be labeled.

**17.1.3\* Fire Window Frames.** Fire window frame assemblies shall be permanently labeled for such use.

#### 17.2 Glazing Material.

**17.2.1\* Labeled.** Fire protection glazing or fire resistance glazing in fire windows shall be labeled. (*See also 17.2.3.*)

When skylight is an exit passageway (Fire Code)

### [BE] 1024.2 Width and Capacity


Diagram

The required capacity of exit passageways shall be determined as specified in Section 1005.1 but the minimum width shall be not less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall be not less than 36 inches (914 mm) in width. The minimum width or required capacity of exit passageways shall be unobstructed.

**Exception:** Encroachments complying with Section 1005.7.

*The clear width of exit passageways in a Group I-2 occupancy used for the movement of beds and litters shall be 44 inches (1118 mm) minimum.*

UpCodes Diagrams ? ^



Exit Passageways: Width and Capacity


### [BE] 1024.3 Construction

Assembly


Diagram

Exit passageway enclosures shall have walls, floors and ceilings of not less than a 1-hour fire-resistance rating, and not less than that required for any connecting interior exit stairway or ramp. Exit passageways shall be constructed as fire barriers in accordance with Section 707 of the *California Building Code* or horizontal assemblies constructed in accordance with Section 711 of the *California Building Code*, or both.

UpCodes Diagrams **Assemblies** ^



Exit Passageways: Construction (IBC)



Required Fire Ratings for Protective Wall Assemblies

Per Building Code

TABLE 716.1(3)  
FIRE WINDOW ASSEMBLY FIRE PROTECTION RATINGS

TYPE OF WALL ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE WINDOW ASSEMBLY RATING (hours)	FIRE-RATED GLAZING MARKING
Interior walls			
Fire walls	All	NP <sup>a</sup>	W-XXX <sup>b</sup>
Fire barriers	>1	NP <sup>a</sup>	W-XXX <sup>b</sup>
	1	NP <sup>a</sup>	W-XXX <sup>b</sup>
Atrium separations (Section 707.3.6), Incidental use areas (Section 707.3.7), <sup>c</sup> Mixed occupancy separations (Section 707.3.9)	1	3/4	OH-45 or W-60
Fire partitions	1	3/4	OH-45 or W-60
	0.5	1/3	OH-20 or W-30
Smoke barriers	1	3/4	OH-45 or W-60
Exterior walls	>1	1 1/2	OH-90 or W-XXX <sup>b</sup>
	1	3/4	OH-45 or W-60
	0.5	1/3	OH-20 or W-30
Party wall	All	NP	Not Applicable

NP = Not Permitted.

WUI per Building Code

**708A.2.1 Exterior Windows, Skylights and Exterior Glazed Door Assembly Requirements**

Exterior windows, skylights and exterior glazed door assemblies shall comply with one of the following requirements:

1. Be constructed of multipane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing, or
2. Be constructed of glass block units, or
3. Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or
4. Be tested to meet the performance requirements of SFM Standard 12-7A-2.

**708A.2.2 Operable Skylights**

Operable skylights shall be protected by a non-combustible mesh screen where the dimensions of the openings in the screen shall not exceed 1/8-inch (3.2 mm).

Sincerely,



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