California Energy Commission
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a. The measured duct leakage shall be equal to or less than 15 percent of the system air handler airflow as confirmed by field verification and diagnostic testing utilizing the procedures in Reference Nonresidential Appendix Section NA2.1.4.2.1; or

b. If it is not possible to comply with the duct leakage criterion in Subsection 141.0(b)2Diia, then all accessible leaks shall be sealed and verified through a visual inspection and a smoke test performed by a certified HERS Rater utilizing the methods specified in Reference Nonresidential Appendix NA2.1.4.2.2.

EXCEPTION to Section 141.0(b)2Dii: Duct Sealing. Existing duct systems that are extended, which are constructed, insulated or sealed with asbestos are exempt from the requirements of subsection 141.0(b)2Dii.

E. **Altered Space-Conditioning Systems.** When a space-conditioning system is altered by the installation or replacement of space-conditioning system equipment (including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, or cooling or heating coil):

i. For all altered units where the existing thermostat does not comply with Reference Joint Appendix JA5, the existing thermostat shall be replaced with a thermostat that complies with Reference Joint Appendix JA5. All newly installed space-conditioning systems requiring a thermostat shall be equipped with a thermostat that complies with Reference Joint Appendix JA5; and

ii. The duct system that is connected to the new or replaced space-conditioning system equipment shall be sealed, if the duct system meets the criteria of Sections 140.4(l)1, 2 and 3, as confirmed through field verification and diagnostic testing, in accordance with the applicable procedures for duct sealing of altered existing duct systems as specified in Reference Nonresidential Appendix NA2, and conforming to the applicable leakage compliance criteria in Section 141.0(b)2D.

EXCEPTION 1 to Section 141.0(b)2Eii: Duct Sealing. Buildings altered so that the duct system no longer meets the criteria of Sections 144 (l)1, 2, and 3 are exempt from the requirements of Subsection 141.0(b)2Eii.

EXCEPTION 2 to Section 141.0(b)2Eii: Duct Sealing. Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2 are exempt from the requirements of Subsection 141.0(b)2Eii.

EXCEPTION 3 to Section 141.0(b)2Eii: Duct Sealing. Existing duct systems constructed, insulated or sealed with asbestos are exempt from the requirements of Subsection 141.0(b)2Eii.

F. Spaces with lighting systems installed for the first time shall meet the requirements of Sections 110.9, 130.0, 130.1, 130.2, 130.4, ~~130.5,~~ 140.3(c), 140.6, and 140.7.

130.5 is included in paragraph P.

G. When the requirements of Section 130.1(d) are triggered by the addition of skylights to an existing building and the lighting system is not recircuited, the daylighting control need not meet the multi-level requirements in Section 130.1(d).

H. New internally and externally illuminated signs shall meet the requirements of Sections 110.9, 130.3 and 140.8.

~~I. For each enclosed space, alterations to existing indoor lighting shall meet the following requirements:~~

~~i. Luminaire Classification and Power shall be determined in accordance with Section 130.0(c).~~

~~EXCEPTION to Section 141.0(b)2Ii: For only a Lighting System Alteration in accordance with Section 141.0(b)2Iii, or a Luminaire Modifications in Place in accordance with Section 141.0(b)2Iiii; an existing incandescent, fluorescent or HID luminaire may be modified and classified as a luminaire having a different number of, or type of light source(s), provided all of the following conditions are met:~~

~~a. The luminaire has been previously used and is in an existing installation; and,~~

~~b. The modified luminaire is listed with the different number or type of light source(s) under the installed conditions; and~~

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SECTION 141.0

TABLE 141.0-E Control Requirements for ~~Lighting System~~Entire Luminaire Alterations

~~Mandatory~~ Control requirements that shall be met when 10% or more of existing luminaires in an enclosed space are altered	Resulting lighting power, compared to the lighting power allowance specified in Section 140.6(c)2, Area Category Method	
	Lighting power is ≤ 85% of allowance	Lighting power is > 85% ~~to 100%~~ of allowance
Section 130.1(a)1, 2, and 3 Area Controls	Yes	Yes
Section 130.1(b) Multi-Level Lighting Controls – only for alterations to general lighting of enclosed spaces 100 square feet or larger with a connected lighting load that exceeds 0.5 watts per square foot	For each ~~luminaire~~enclosed space, minimum one step between 30-70 percent of lighting power regardless of luminaire type, or meet Section 130.1(b)	Yes
Section 130.1(c) Shut-Off Controls	Yes	Yes
Section 130.1(d) Automatic Daylight Controls	Not Required	Yes
Section 130.1(e) Demand Responsive Controls – only for alterations > 10,000 ft² in a single building, where the alteration also changes the area of the space, or changes the occupancy type of the space, or increases the lighting power	Not Required	Yes

~~TABLE 141.0-E Requirements for Luminaire Alterations~~

~~Quantity of existing affected luminaires per Enclosed Space[1]~~	~~Resulting Lighting Power for Each Enclosed Space~~	~~Applicable Mandatory Control Provisions for Each Enclosed Space~~	~~Multi-level Lighting Control Requirements for Each Altered Luminaire~~
~~Alterations that do not change the area of the enclosed space or the space type~~			
~~Sum total < 10% of existing luminaires~~	~~Existing lighting power is permitted~~	~~Existing provisions are permitted~~	~~Existing controls are permitted~~
~~Sum total ≥ 10% of existing luminaires~~	~~≤ 85% of allowed lighting power per Section 140.6 Area Category Method~~	~~§130.1(a), (e)~~	~~Two level lighting control[2] or §130.1(b)~~
	~~> 85% of allowed lighting power per Section 140.6 Area Category Method~~	~~§130.1(a), (e), (d)[3]~~	~~§130.1(b)~~
~~Alterations that change the area of the enclosed space or the space type or increase the lighting power in the enclosed space~~			
~~Any number~~	~~Comply with Section 140.6~~	~~§130.0(d)[3] §130.1(a), (e), (d)[3], (e)~~	~~§130.1(b)~~

~~1. Affected luminaires include any luminaire that is changed, replaced, removed, relocated; or, connected to, altered or revised wiring, except as permitted by EXCEPTIONS 1 and 2 to Section 141.0(b)2Iii:~~

~~2. Two level lighting control shall have at least one control step between 30 percent and 70 percent of design lighting power in a manner providing reasonably uniform illuminations~~

~~3. Daylight controls in accordance with Section 130.0(d) are required only for luminaires that are altered.~~

~~TABLE 141.0-F Requirements for Luminaire Modifications in Place~~

~~For compliance with this Table, building space is defined as any of the following:~~

~~1. A complete single story building~~

~~2. A complete floor of a multifloor building~~

~~3. The entire space in a building of a single tenant under a single lease~~

~~4. All of the common, not leasable space in single building~~

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