

FACT SHEET



CALIFORNIA ENERGY COMMISSION

Nonresidential Lighting Wiring Alterations 2013 California Building Energy Efficiency Standards

The 2013 Building Energy Efficiency Standards (Energy Standards) introduce new requirements for nonresidential lighting wiring alterations (Section [141.0\(b\)2liv](#)). The following is a summary of the new requirements.

Alterations Overview

Section [141.0\(b\)2](#) of the Energy Standards defines the requirements for the prescriptive approach to nonresidential alterations:

Prescriptive approach. *The altered components of the envelope, or space conditioning, lighting and water heating systems, and any newly installed equipment serving the alteration, shall meet the applicable requirements of Sections 110.0 through 110.9, Sections 120.0 through 120.6, and Sections 120.8 through 130.5.*

Typically, only the altered components must meet the requirements of Section [141.0](#). When Section [141.0](#) refers to mandatory requirements (Sections 110.0 through 110.9, 120.0 through 120.6, and 120.8 through 130.5), altered components only need to meet the requirements of the section(s) which applies.

Lighting Wiring Alterations

The requirements for lighting wiring alterations are found in Section [141.0\(b\)2liv](#), which states:

Lighting Wiring Alterations shall meet the applicable requirements in Sections 110.9, 130.1, and 130.4.

Lighting Wiring Alterations include the following:

- *Adding a circuit feeding luminaires.*
- *Modifying or relocating wiring to provide power to new or relocated luminaires.*
- *Replacing wiring between a switch or panelboard and luminaires(s).*
- *Replacing or installing a new panelboard feeding lighting systems.*

Based on the previous analysis, only the altered components of the lighting wiring alteration must meet the requirements of:

- Section [110.9](#), mandatory requirements for lighting control devices and systems, ballasts, and luminaires.

- Section [130.1](#), indoor lighting controls that shall be installed (area, multi-level, automatic shut-off, daylighting, and demand responsive).
- Section [130.4](#), lighting control acceptance and installation certificate requirements.

Some of the requirements of the listed sections may not be applicable in different scenarios.

Examples of Lighting Wiring Alterations

Some examples of lighting wiring alterations include:

- The addition of an automatic time clock control installed between the panelboard and luminaires is a lighting wiring alteration because wiring between the panelboard and the existing luminaire(s) is being replaced. The altered component is the automatic time clock control and it must meet the applicable requirements in Sections [110.9](#), [130.1](#), and [130.4](#). Examples of some of the applicable requirements include: mandatory requirements for lighting control devices and systems, shut-off control requirements, and Acceptance Testing by a certified Lighting Controls Acceptance Test Technician. Since the panelboard and luminaires are not being altered in this example, they would not be held to any requirements.
- Relocation of an existing lighting switch is also a lighting wiring alteration. In this example, the switch is the altered component and it must meet applicable requirements in Sections [110.9](#), [130.1](#), and [130.4](#). If the existing switch is solely a manual ON/OFF control, it must meet the requirements that apply to area controls. The requirements that apply to automatic shut-off controls are not applicable. However, if the existing switch is a manual ON/OFF control with built in occupancy sensor, it must meet the requirements that apply to area controls and shut-off controls. Other applicable requirements include mandatory requirements for lighting control devices and systems, and Acceptance Testing by a certified Lighting Controls Acceptance Test Technician. Since the luminaires are not being altered in this example, they would not be held to any requirements.

If existing luminaires are altered or modified, the altered or modified luminaires and/or enclosed spaces would need to meet the applicable lighting controls requirements of Section [141.0\(b\)2Iii](#) (Lighting System Alterations) or Section [141.0\(b\)2Iiii](#) (Luminaire Modifications-in-Place) respectively.

Help With the 2013 Energy Standards

For assistance with understanding or locating information in the 2013 Energy Standards, contact the Energy Standards Hotline at: (800) 772-3300 (toll-free in California); (916) 654-5106 (outside California); or via email at title24@energy.ca.gov.