INSTALLER AND INSPECTOR QUICK-REFERENCE: 2025 NRCA-PRC-12-F

Elevator Lighting and Ventilation Controls

Purpose and Scope of the Test

This test is to ensure that shut off controls installed in an elevator cab turn lighting and ventilation fans off when the elevator is not occupied for more than 15 minutes, and on when elevator cab operation resumes.

The control system must also be able to detect occupancy, and keep the lighting and ventilation fan on, in the event that someone is occupying the elevator cabin and the elevator conveyance or doors malfunction.

Shut off controls save energy by turning off unnecessary lighting and ventilation in the elevator cab while it is not operating.

Test Trigger

This test is required for newly installed elevators in nonresidential, hotel/motel, and multifamily buildings.

Exception: Elevators located in healthcare facilities.

Relevant Energy Code References and Required Compliance Documents

Title 24, Part 6 of the California Building Standards Code, Building Energy Efficiency Standards (Energy Code) sections 120.6(f), 160.7(a); NA7.14; NRCC-PRC-E; NRCI-PRC-E.

Who Can Perform the Test

There are no restrictions. The installing contractor will typically perform this test. Note that the contractor can complete the test, and ATTCP certification is not required for this test at this time.

Required Tools

This test verifies the functionality of installed shut off controls visually and does not require special instrumentation.

Estimated Time to Complete Test

Construction inspection: 0.25 hour (per system).

Functional testing: 1 hour (per system).

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Potential Issues and Cautions

The test will be performed by varying the control parameters used by the elevator lighting and ventilation fan control system. Therefore, the elevator lighting and ventilation fan control systems must be installed and operating, including completion of all start-up procedures per manufacturer's or designer's recommendations, to perform the test.

Some elevators use weight sensors to provide occupancy sensing instead of occupant sensing controls. In this case, document that the elevator uses weight sensors to provide occupancy sensing control of lighting and ventilation fans.

Inspection Enforcement

- Verify that the construction inspection and functional testing items on NRCA-PRC-12-F are marked with "Complies."
- Verify that all declaration statements on the last page of the NRCA-PRC-12-F are complete and that the document is signed.

Acceptance Criteria

The occupancy sensor has been located to minimize false signals, and the elevator cab does not have any obstructions that could adversely affect the senor's performance.

For passive infrared sensors, the sensor pattern does not enter into the elevator lobby.

For ultrasonic sensors, the sensor does not emit an audible sound.

The signal sensitivity is adequate to achieve desired control. The sensor should not detect motion in the elevator lobby.

While the elevator cabin is unoccupied, the lighting and ventilation fan turn off after 15 minutes of the door closing. The lighting and ventilation fan turn on immediately upon door opening.

While the elevator cabin is occupied, the lighting and ventilation immediately turn on and remain on while occupied.