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December 13, 1999

ELEVATOR SAFETY PROGRAM CODE INTERPRETATION

OR-1999-003

Applies to all existing installations.

Subject: Connecting Door Detectors to the 110vac Car Lighting Circuit
Rule No: NFPA 70, Art. 620-22(a)
ASME Interp: N/A
Effective: December 13, 1999

Question: Can a door detector be connected to the car lighting circuit?

NFPA 70, Art. 620-22(a) states: *A separate branch circuit shall supply the car lights, receptacle(s), auxiliary lighting power source, and ventilation on each elevator car.* Literally, a door detector does not fall under these categories and thus, should not be connected to the 110vac circuit feeding the car lighting. However, it is recognized that in existing installations, providing an additional 110vac circuit may be extremely difficult.

Therefore, it is permissible to connect a door detector to the car 110vac lighting circuit only under the following conditions:

1. A separate source of 110vac power is not readily accessible.
2. The detector must clearly indicate that its source voltage is energized (i.e. indicator light).
3. Loss of the 110vac to the door detector will cause the door to remain open at the landing.
4. A label shall be placed on the detector (or door panel next to the detector) that indicates the source of the power supply to the unit (i.e. *"Connected to car 110vac"*)
5. A label shall also be placed on the main line disconnect that indicates that the detector is still energized when the disconnect is open.

NOTE: New installations must be provided with a separate 110vac power supply for the door detector. Alterations will be treated on a case-by-case basis, but shall comply with the requirements for a new installation when feasible.

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