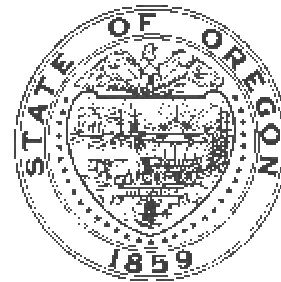


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November 30, 2001

ELEVATOR SAFETY PROGRAM CODE INTERPRETATION

OR 2001-002

Applies to all new installations and alterations.

Subject: Shunt Trip Control Voltage Monitoring
Rule No: NFPA 72 (1999) 3-9.4.4
ASME Interp: N/A
Effective: November 30, 2001

Question: Is an indicator light required on the shunt trip device located in the elevator machine room to indicate the presence of the control circuit voltage?

Answer: No. However, there is no language that would prevent such an indicator light from being provided.

NFPA 72 1999, Item 3-9.4.4 states: *Control circuits to shut down elevator power shall be monitored for presence of operating voltage. Loss of voltage to the control circuit for the disconnecting means shall cause a supervisory signal to be indicated at the control unit and required remote annunciators.*

The "control unit" in the above rule does not refer to the shunt trip disconnecting device. It will normally refer to the building fire alarm control unit or other control unit panels that are used to interface fire alarm initiating devices with building systems and alarms.

The monitoring of the control circuit voltage is normally achieved by connecting the heat detectors or flow sensors to the fire alarm panel. If a heat detector or flow sensor malfunctions or is removed, a trouble initiation signal will be activated at the fire alarm control panel.

There is a provision under the current adopted elevator code that allows the control circuit to be connected directly to the load side of the main line disconnect feeding the elevator power. When the disconnect is opened, the control circuit would be lost. However, there is no need for a shunt trip to activate if the main power is already disconnected. *(Note: this provision will be removed from the next edition of the elevator safety code scheduled to be effective by about Fall 2002. Control voltage monitoring will be solely according to NFPA 72.)*

A problem does arise if the control circuit voltage is taken from the load side of the disconnect and passed through a transformer provided with overcurrent protection. If the overcurrent device activates, control voltage would be lost and the shunt trip would not activate. In such cases the detectors must be monitored by a fire alarm control panel or other control unit.

To ensure proper operation, it is advisable to follow NFPA 72 1999 for all current installations.

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