

Technical Advisory

FAQs concerning Florida's Elevator Industry

Issue 2007-02

BUREAU OF ELEVATOR SAFETY

December 7, 2007

This advisory is provided in response to inquiries, and is not intended as legal advice. While care has been taken to ensure its accuracy, in the event of any conflict the actual statute, code or administrative rule will prevail.

Requirements for Shunt Trips in Elevators

The Bureau has received several inquiries concerning shunt trip installations as they apply to hoistways and machine rooms, for new and existing elevators with alterations.

New and/or Existing Elevators

Elevators permits issued pursuant to the 1984 code edition, effective 7/01/1985, which includes serial number 37812 to the present, require a means to automatically disconnect the main line power supply (i.e. shunt trip) prior to the application of water when a sprinkler is present in the machine room or hoistway.

The 1984 through 1996 editions of A17.1 rule 102.2(c) (4) are worded the same and requires that "means shall be provided to automatically disconnect the main line power supply to the affected elevator prior to the application of water." A17.1-1984 was adopted by BES on 07/01/85 and compliance is required for all elevators in Florida beginning with serial number 37812.

Prior to 07/01/85, elevators in Florida with serial number 37811 and earlier were permitted to have sprinklers in hoistways and machine rooms only if the local fire department required them, otherwise they were considered foreign piping according to code.

If the sprinkler system is **new** or has been **altered**, since initial inspection, then a means to automatically disconnect the main line power supply (i.e., shunt trip) prior to the application of water when a sprinkler is present in the machine room or hoistway per A17.1-2000 and 2004 sections 2.8.2.3.2 **is** required.

If the sprinkler system was existing in machine rooms or hoistways of elevators for serial # 37811 and earlier and is **not** new or has **not** been altered, the shunt trip is not required. Even though it is not required, it is strongly recommended that shunt trips be installed for life safety protection.

Both the 2000 and 2004 editions of A17.1 section 2.8.2.3.2 are worded the same and requires that "means shall be provided to automatically disconnect the main line power supply... to the affected elevator... prior to the application of water." A17.1-2000 was adopted 10/01/2005 beginning with serial number 89682 and A17.1-2004 was adopted 12/08/2006 for serial number 92918.

Alterations to Existing Elevators

The alteration section 8.7 of A17.1-2004 refers to the applicable requirements of section 2.8 (2.8.2.3.2 in the case of sprinklers) in sections 8.7.2.8 and 8.7.3.8.

If the sprinkler system is present and has been **altered**, after the initial acceptance inspection, then a means to automatically disconnect the main line power supply (i.e. shunt trip) prior to the application of water when a sprinkler is present in the machine room or hoistway **is** required to be in compliance with A17.1- 1984 through 2004 editions.

Note: if the sprinkler system was installed after the initial acceptance inspection, the installation of the sprinkler system is considered an alteration of the elevator according to ASME.

Additional requirements may apply see NFPA 13, 70 and 72.

Phase I Emergency Recall Operation by Fire Alarm Initiating Devices

It should also be noted, that Section 8.7 Alterations of A17.1-2004 requires conformance to section 2.27.3.2 - Phase I Emergency Recall Operation by Fire Alarm Initiating Devices. This section requires a Fire Alarm Initiating Device (i.e. smoke detector) in the machine room (and in the hoistway when sprinklers are installed) to automatically return the elevator to the recall level.