



Nassau County Fire Commission

Office of the Fire Marshal

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nassaucountyny.gov/firemarshal

July 24, 2013

To: Licensed Fire Alarm and Smoke Detection System Contractors
Licensed Fire Sprinkler System Contractors
Fire Protection System Engineers and Designers

From: Assistant Chief Fire Marshal Michael F. Uttaro

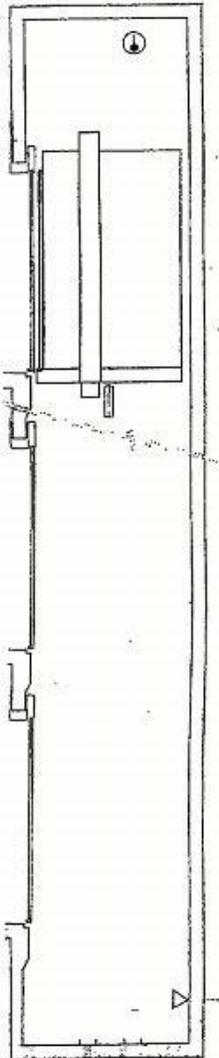
Re: Elevator Fire Protection

Where elevator equipment is located, or its enclosure is configured, such that application of water from sprinklers could cause unsafe elevator operation, means shall be provided to automatically disconnect the main line power supply to the affected elevator and any other power supplies used to move the elevator upon or prior to the application of water. (ASME A17.1, Safety Code for Elevators and Escalators).

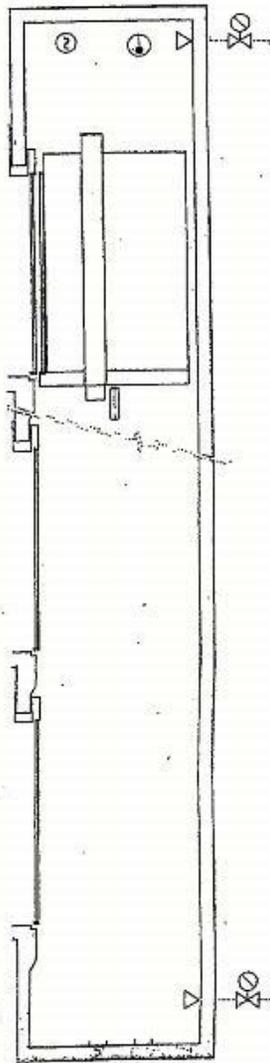
1. Plan submissions involving elevators (passenger or freight) shall include documentation from the engineer or architect of record that the elevator hoistway is non-combustible and the cab enclosure conforms to the requirements of ANSI/ASME A17.1, and NFPA 13.
2. If the hoistway / cab enclosure cannot be certified, or the documentation cannot be provided, the elevator shall be protected at the top of the hoistway using upright, pendant, or sidewall discharge heads (ordinary or intermediate temperature) using one of the following options:
 - Installation of an approved/listed pre-action system.
 - Installation of a normally open solenoid valve, approved and listed for fire sprinkler use, in coordination with a smoke detector (to initiate elevator recall), and a heat detector to activate a power shunt to the elevator and solenoid valve.
 - The installation of a smoke detector to initiate elevator recall. Installation of a heat detector, located within 2 feet of the sprinkler head, to activate the elevator power shunt trip. Installation of a sprinkler head in the top of the hoistway. The heat detector shall have a lower temperature rating and a higher sensitivity as compared to the sprinkler (e.g. 135° heat detector and a 212° sprinkler head).
3. All elevator machine rooms shall be protected using one of the above alternative methods.
4. Sidewall sprinkler(s) shall be installed in bottom of each elevator hoist way pit not more than 2 feet above the floor of the pit.
 - A drain point shall be provided for hoist way pit coverage designed as a dry system or pre-action system.

- 5.** Where sprinklers are not present at the top of an elevator hoist way, smoke detection in the top of the hoistway shall not be permitted, unless they are installed to activate the elevator hoistway smoke relief equipment. The detector shall initiate elevator recall. Where smoke relief equipment is not provided, heat detection shall be provided in the top of the hoist way.
- 6.** Limited Use/Limited Application (LU/LA) elevators are exempt from power shutdown requirements. The design of the specific LU/LA elevator enclosure will determine the required fire protection requirements (e.g. sprinkler protection if pit height is six inches or higher; smoke detection if hoist way is enclosed at the top).
- 7.** Provide a monitored shutoff valve outside of the elevator hoistway for sprinkler heads within the hoist way.
- 8.** Provide a monitored shutoff valve outside of the elevator machine room for sprinkler heads within the machine room.
- 9.** All sprinkler risers and returns shall be located outside of the hoistway and machine room. Branch lines in the hoist way shall supply sprinklers at one floor level only.
- 10.** All elevators serving a building shall be keyed alike for fire department access.

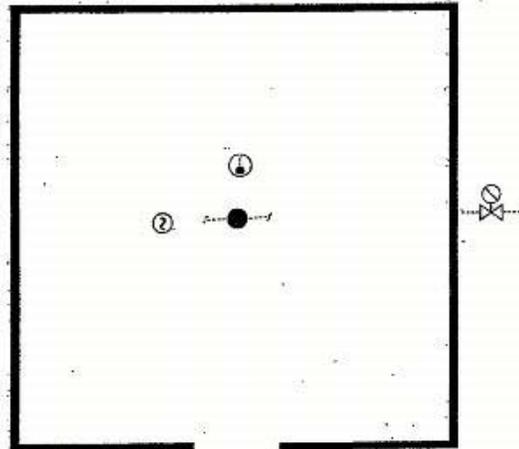
Certified -
Noncombustible Hoist way
ASME A17.1 Compliant Cab



Non-Certified
Hoist way and / or cab



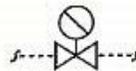
All Elevator Machine Rooms



Smoke detector



Heat detector
(thermal detector)



Valve with tamper
detector/switch



Sidewall
sprinkler



Pendent
sprinkler