



City of Bothell Fire and E.M.S.
Community Risk Reduction
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City of Bothell™

Elevator Sprinkler Requirements

Revision Date: 08/10/2012
Fire Prevention Engineering
Standard # 008

Reference:
BMC
NFPA 13

Scope and Purpose:

This standard is established to assist Community Risk Reduction in the safeguarding of our customers, and the firefighters that protect them, from the hazards of fire, hazardous materials, and natural disasters through the standardization of requirements for Elevators for structures being built within the City of Bothell.

Code Authority:

Bothell Municipal Code, The Uniform Building Code and The Uniform Fire Code

Elevator Hoistways and Machine Rooms:

Sidewall spray sprinklers shall be installed at the bottom of each elevator hoistway not more than 2 ft. (0.61 m) above the floor of the pit.

Automatic sprinklers in elevator machine rooms or at the tops of hoistways shall be of ordinary- or intermediate-temperature rating.

Upright, pendent, or sidewall spray sprinklers shall be installed at the top of elevator hoistways.

The sprinkler required at the top of the elevator hoistway shall not be required where the hoistway for a passenger elevator(s) is noncombustible or limited-combustible and the car enclosure materials meet the requirements of ASME A17.1, *Safety Code for Elevators and Escalators*.

Sprinklers shall be installed at the top and bottom of elevator hoistways where elevators utilize polyurethane-coated steel belts or other similar combustible belt material.

The sprinklers in the pit are intended to protect against fires caused by debris, which can accumulate over time. Ideally, the sprinklers should be located near the side of the pit below the elevator doors, where most debris accumulates. However, care should be taken that the sprinkler location does not interfere with the elevator toe guard, which extends below the face of the door opening.

Safety Code for Elevators and Escalators, allows the sprinklers within 2 ft. (0.65 m) of the bottom of the pit to be exempted from the special arrangements of inhibiting waterflow until elevator recall has occurred.

ASME A17.1, *Safety Code for Elevators and Escalators*, requires the shutdown of power to the elevator upon or prior to the application of water in elevator machine rooms or hoistways. This shutdown can be accomplished by a detection system with sufficient sensitivity that operates prior to the activation of the sprinklers (see also [NFPA 72, National Fire Alarm and Signaling Code](#)). As an alternative, the system can be arranged using devices or sprinklers capable of effecting power shutdown immediately upon sprinkler activation, such as a waterflow switch without a time delay. This alternative arrangement is intended to interrupt power before significant sprinkler discharge.

The sprinkler required at the bottom of the elevator hoistway shall not be required for enclosed, noncombustible elevator shafts that do not contain combustible hydraulic fluids.

A 4" liquid tight lip shall be provided around the entire machine room(s) to contain any spill of hydraulic fluid.