

Date: October 7, 2003

From: Paul Theriault

Re: Sprinklers in Elevator Machine Rooms, Pits and Hoist Ways

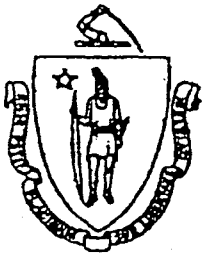
The sprinkler moratorium eliminating the installation of sprinklers in all elevator machine rooms, pits and hoist ways is still in effect until January 2004 when the new elevator code will take over.

The following is the latest information regarding this subject. Essentially, the elimination of sprinklers from these areas has been captured in some revisions to the building code (CMR 780) and elevator code (CMR 524). The building code is very late in its revision cycle and is unknown as to when it will be public. The elevator code was issued in March 2003, but was not fully enforceable until September. However, since the moratorium is in effect until the end of the year, the sprinkler portion of the elevator code doesn't become enforceable until January 2004.

In addition to other changes, the new elevator code prohibits the installation of sprinklers in elevator machine rooms, pits and shafts for new installations. In addition, it requires the retroactive removal of all existing sprinkler installations in these areas.

Although the attached revisions to CMR 524 indicates that the sprinkler piping is to be removed by January 2004, it is misleading as the moratorium is in effect until then and essentially takes precedence. As indicated in the attached letter from the elevator board (July 29, 2003), elevator inspectors conducting their annual inspections starting in January 2004, will issue a citation for existing sprinkler installations. Owners will have 180 days from the citation to remove the existing sprinklers and piping.

Also, please note another point of possible misinterpretation in the letter from the board with respect to the wording in the code revision. The letter indicates that inspectors will "verify existence of fire stopping that seals all holes made by the removal of pipes". It does not say that the piping has to be removed. The code revision indicates that the pipe shall be cut off at the wall outside the machine room and capped. In a presentation by Charlie Murphy, Chairperson of the Elevator Board, hosted by the Fire Prevention Association of Massachusetts, the intent of the code change was discussed. Mr. Murphy clearly indicated that the intent is to remove the sprinklers, plug the outlets and cut and cap the pipe. It is not required to totally remove the pipe, as some existing piping is impossible to remove (i.e. buried in walls or concrete). The intent is to eliminate the existence of water piping in the identified areas. However, please note that in many instances it may be advised, requested or simply easier to remove the piping from the space and seal the penetrations. Also, be aware that working in these spaces will likely require that the elevators be powered down and that the work be completed on off hours.



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# The Commonwealth of Massachusetts Board of Elevator Regulations

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Edward A. Flynn  
Secretary

Joseph S. Lafl  
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Date: July 29, 2003  
To: Whom it may concern  
From: Board of Elevator Regulations  
Subject: Sprinklers and Shunt trip circuit breakers

On May 14, 2002, the Board of Building Regulations and Standards did amend 780 CMR the Massachusetts State Building Code, Sections 904.1, which deleted the requirement for sprinklers in all elevator machine rooms, hoistways and pits.

On March 14, 2003, the Board of Elevator Regulations did file changes to 524 CMR the Massachusetts Elevator Regulations with the Secretary of State. Refer to Sec. 17.02 (20) of those regulations which requires removal of sprinkler heads and their piping from all locations where they were installed before or during the building code action. This change also required the removal or deactivation of the shunt trip circuit breakers in the elevator machine rooms.

Many buildings that were under construction prior to or during the building code change were given the option of installing the sprinklers as planned or filing revised plans covering the change and deleting them during construction.

The elevator regulations above are effective on Jan. 1, 2004.

After Jan. 1, 2004, and during the regular annual inspection of the elevators in any building by the Department of Public Safety, they will cite an owner advising him that the existence of sprinklers and the shunt trip circuit breakers are not in compliance with regulations and must be removed within 180 days.

Notice must be given to and a permit received from the Fire Department prior to the removal of any sprinklers from a building as required by MGL 148 Sec. 27A.

During the annual inspection the department will verify the existence of fire stopping that seals all holes made by the removal of the pipes. The inspection will include other new requirements for the removal of combustibles from that room and for the existence of required signage on the machine room door. The Board encourages the Fire Services to participate in this enforcement.

The Department of Public Safety will also require a permit for the removal of the shunt trip operation of the circuit breaker to insure it has been deactivated.

Board approved 07/29/03

File:Murph/Sprinkler/shunt/FD

Add to 17.02 (9) in the first paragraph the following sentence:

Machine room doors shall be identified with a sign that will read "ELEVATOR MACHINE ROOM – NO STORAGE ALLOWED"

The letter size shall be a minimum of (3/4) inch and shall be of a contrasting color with that of the background.

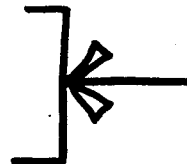
Add to 524 CMR 17.02 Machine Rooms Sheave rooms and Secondary Levels a new (20). The following applies to all existing machine rooms:

- (a) All materials not directly related to the elevator equipment shall be prohibited from storage in any elevator machine room.
- (b) Elevator related material stored in machine rooms shall be stored in non-combustible containers.
- (c) All flammable / combustible liquids shall be kept in approved containers and secured in an approved flammable liquids locker. The amount stored shall be regulated by the Massachusetts Fire Prevention Regulations 527 CMR.
- (d) All machine rooms shall contain a fire extinguisher approved by the Massachusetts Fire Prevention Regulations 527 CMR.
- (e) The machine room door fire rating, firewall penetrations and other building conditions that would prevent the spread of fire and / or smoke from the machine room shall conform with the requirements of the Massachusetts State Building Code 780 CMR.
- \* (f) If an existing electric traction, drum or hydraulic elevator machine room, hoistway or pit contain sprinklers they shall be removed in accordance with the requirements of the Massachusetts State Building Code, 780 CMR, in accordance with the following schedule:
  - (1) By January 1, 2004 the existing water supply piping for the sprinklers shall be cut off at the wall outside the machine room or hoistway and the piping capped.
  - (2) Automatic main line power disconnecting devices shall be disabled or removed.

Note: The above shall be in compliance with the Massachusetts General Laws Chapter 148, Section 27A.

524 CMR 17.06: Pipes and Wiring under (1) Delete the entire Exception: and add this new Exception: Existing non-elevator related pipes and wiring installed prior to March 9, 1950 which are still in use, and which are located within elevator machine rooms or hoistway, may remain.

Sprinklers shall not be installed in elevator machine rooms machinery spaces, hoistways or pits per the Massachusetts State Building Code 780 CMR.



524 CMR 17.16 Car and Counterweight Safeties and Speed Governors, A new (24)

“Hydraulic cylinders buried in the ground, installed without a safety bulkhead shall install governor-operated safeties or a plunger gripper by January 1, 2004”

524 CMR 17.23 General Requirements for Hydraulic Elevators Add at the end of(10)(a) the following:

“Hydraulic cylinders buried in the ground installed without a safety bulkhead shall install governor operated safeties or a piston clamp by January 1, 2004

Any person adding hydraulic oil to a unit shall notify the building owner that the cylinder must be replaced or the elevator removed from service.