



The Commonwealth of Massachusetts
Executive Office of Public Safety and Security
Board of Fire Prevention Regulations

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Memorandum

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| 42.7.4 |

To: Paul Vigneau, Director, Department of Fire Services, Division of Fire Safety

From: Board of Fire Prevention Regulations

Date: September 7, 2017

RE: Request For Interpretation of the provisions of 527 CMR 1.00:42.7.4 - 42.7.4.5, Regarding Refueling Operation Attendants and Canopy Suppression Systems as applied to Hydrogen Refueling Facilities.

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This is in reply to your April 28, 2017 request for an interpretation of the provisions of 527 CMR 1.00: 42.7.4 - 42.7.4.5 which establishes certain requirements for refueling operation attendants and canopy suppression systems. More particularly you are seeking guidance about the applicability of said requirements to hydrogen refueling facilities.

Background:

527 CMR 1.00: 42.7.4 currently requires at least one attendant for refueling operations and 527 CMR 1.00: 42.7.4.5 currently requires an overhead fixed fire extinguishing system at said operations.

Question:

Are the provisions for an attendant at self-service motor fuel dispensing facilities intended to apply to hydrogen fueling facilities?

Answer:

No. 527 CMR 1.00: 42.7.4, when written, was intended for facilities solely operated and equipped for only liquid fuel dispensing.

Question:


Are the provisions for overhead (pre-engineered) fixed fire extinguishment systems intended to apply to all fueling facilities?

Answer:

Yes, such fixed fire extinguishment systems for fueling operations were intended to apply to all fueling facilities. However, due to the characteristics of hydrogen vs. liquid fuel, the overhead (pre-engineered) fixed fire extinguishing systems may not be appropriate for the protection of the dispensing units of a hydrogen fueling facility. This does not mean that such fire protection/suppression systems are not required for those areas, systems and equipment of the facility involving gaseous fuel storage.

The Board notes that the provisions of the 2016 Edition NFPA-2 provides more specificity regarding hydrogen fueling facilities. Although NFPA-2 is not adopted in the current code, the AHJ, under the provisions of 527 CMR 1.00, 1.4.2. is permitted to allow, under appropriate circumstances, alternative methods, such as those found in NFPA-2, as long as the method provides at least the equivalent (and not less fire safety) of the fire code requirements.

Final Note: Interested parties should be directed to a recent decision of the Fire Prevention Regulations Appeals Board (Docket # 2017-01, 5-16-17) which provides greater detail and analysis about the application of 527 CMR 1.00, as applied to a Hydrogen Fueling Facility. However, it should be noted that the decision was site specific, as the board realizes that each location has its own unique characteristics that must be considered.

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| Executive Director: |  |
| Date: | 9/7/2017 |