



# Coffee Break Training

## 1st Quarter Self-Evaluation

March 30, 2010    CBTs 2010-1 to 2010-13



1. Low pressure portable fire extinguisher containers are those cylinders containing a fire-extinguishing agent (medium), nitrogen, compressed air, or other compressed gases at a service pressure of \_\_\_ psi (\_\_\_ kPa) or lower at 70 °F (21 °C). (Coffee Break Training FP-2010-3)
  - a. 200, 1,379
  - b. 300, 2,068
  - c. 400, 2,758
  - d. 500, 3,447
2. Rocks should not be placed in trenches and frozen earth should not be used for backfilling underground fire protection piping. In trenches cut through rock, tamped backfill should be used for at least \_\_\_ in (\_\_\_ mm) under and around the pipe and for at least \_\_\_ ft (\_\_\_ m) above the pipe. (Coffee Break Training FP-2010-4)
  - a. 3 (75), 2 (0.6)
  - b. 4(102), 3 (1.0)
  - c. 5 (127), 3 (1.0)
  - d. 6 (150), 2 (0.6)
3. According to the National Fire Protection Association (NFPA) 72, National Fire Alarm Code®, a lobby smoke detector to initiate Phase I recall must be located on the ceiling within 21 ft (6.4 m) of the centerline of each elevator door within the elevator bank under control of the detector. **True or False** (Coffee Break Training FP-2010-2)
4. Spray-on fire-resistant materials (sometimes mislabeled as “fireproofing”) are cementitious or fibrous materials that are to provide fire-resistant protection to some underlying building element such as a floor, roof, or wall assembly, or structural framing members. **True or False** (Coffee Break Training FP-2010-1)
5. Sprinklers in the high-temperature zone in front of a unit heater should be of the ordinary-temperature classification (135 to 170 °F [57 to 77 °C]), and sprinklers in the intermediate-temperature zone shall be of the intermediate-temperature classification (175 to 225 °F [79 to 107 °C]). NFPA 13, Standard for the Installation of Sprinkler Systems, includes an illustration of these temperature zones. **True or False** (Coffee Break Training FP-2010-7)
6. Which of the following is not correct to assure the spray-on fire-resistant materials are installed in accordance with the locally-adopted building code? (Coffee Break Training FP-2010-1)
  - a. **Inspections generally are performed by a qualified “special inspector” who has the training and expertise to evaluate the installation.**
  - b. **The underlying surface, called the substrate, must be prepared in accordance with the approved fire-resistant design and material manufacturer’s specifications.**
  - c. **The material should be applied only when the ambient temperature is 85 °F (29 °C). The space where the material is being applied also should be ventilated in accordance with the manufacturer’s recommendations.**
  - d. **The minimum material thickness must meet the requirement of the fire-resistant design. Minimum thickness is measured in accordance with American Society for Testing and Materials (ASTM) W 605, Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members.**



7. High pressure portable fire extinguisher containers are those cylinders (and cartridges) containing nitrogen, compressed air, carbon dioxide, or other gases at a pressure higher than \_\_\_\_\_ psi (\_\_\_\_\_ kPa) at 70 °F. (Coffee Break Training FP-2010-3)
- 200, 1,379
  - 300, 2,068
  - 400, 2,758
  - 500, 3,447
8. The hydrostatic testing of portable fire extinguisher high-pressure cylinders and cartridges must be in accordance with the procedures of Transport Canada (TC), Department of Transportation (DOT), and Compressed Gas Association C-1, *Methods of Hydrostatic Testing of Compressed Gas Cylinders*. **True or False** (Coffee Break Training FP-2010-3)
9. When a trench is excavated and pipe laid in it, backfill should be tamped in layers or puddled under and around pipes to prevent settlement or lateral movement. The backfill should be clean and contain ashes, cinders, refuse, organic matter, or other corrosive materials. **True or False** (Coffee Break Training FP-2010-4)
10. Sprinklers installed near heat sources should be selected with consideration for the potential accidental operation as a result of short- or long-term exposure to elevated temperatures. **True or False** (Coffee Break Training FP-2010-7)
11. Openings that provide access to attic storage spaces should be protected by doors or access panels that are noncombustible or 1-3/4-in (44.5 mm) solid wood equipped with self-closing devices. **True or False** (Coffee Break Training FP-2010-5)
12. Portable fire extinguisher hydrostatic testing is performed by filling the container with water or compressed gas that is compatible with the fire extinguisher container. **True or False** (Coffee Break Training FP-2010-9)
13. Once installed, and before use, all underground fire protection piping and attached appurtenances subjected to system working pressure should be hydrostatically tested at \_\_\_\_\_ psi (\_\_\_\_\_ bar) or 50 psi (3.5 bar) in excess of the system working pressure, whichever is greater, and should maintain that pressure at  $\pm 5$  psi (0.35 bar) for 2 hours. (Coffee Break Training FP-2010-4)
- 200 (13.8)
  - 225 (15.5)
  - 250 (17.2)
  - 300 (20.7)
14. Spray-on fire-resistant material's cohesive/adhesive bond strength when cured (its ability to stay attached to the building element) must be not less than 150 psf (7.17 kN/m<sup>2</sup>). Bond strength is determined by compliance with ASTM W 736, *Standard Test Methods for Cohesion/Adhesion of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members*. **True or False** (Coffee Break Training FP-2010-1)
15. Periodic hydrostatic pressure testing is performed on portable fire extinguishers to evaluate the containers' \_\_\_\_\_. (Coffee Break Training FP-2010-9)
- strength against unwanted failure.
  - ability to withstanding freezing.
  - weight.
  - pressure gauge accuracy.
16. Totally noncombustible commodities on wood pallets enclosed only by a plastic sheet are not considered encapsulated. **True or False** (Coffee Break Training FP-2010-6)
17. According to NFPA 13, high temperature locations should be given special attention to provide sprinklers having other than ordinary-temperature classification (135 to 170 °F), unless other temperatures are determined or unless high-temperature sprinklers are used throughout the remainder of the space. **True or False** (Coffee Break Training FP-2010-7)

18. Wide stairways should be arranged with intermediate handrails so all portions of the stairway width required for egress capacity are within 30 in (762 mm) of a handrail. **True or False** (Coffee Break Training FP-2010-12)
19. The temperature rating of fusible link automatic sprinklers is stamped on the fusible link. For glass bulb sprinklers, the temperature rating is stamped or cast on a visible part. **True or False** (Coffee Break Training FP-2010-8)
20. Nonferrous sprinklers are designed specifically for magnetic resonance imaging (MRI) rooms. **True or False** (Coffee Break Training FP-2010-11)
21. Attics, underfloor, and concealed spaces used for combustible storage should be protected on the storage side as required for 1-hour construction. Generally this can be accomplished by a layer of \_\_\_\_-in (\_\_\_\_ mm) fire-rated gypsum wallboard with sealed joints. (Coffee Break Training FP-2010-5)
- 3/8, 9.6**
  - 1/2, 12.7**
  - 5/8, 15.8**
  - 3/4, 19**
22. According to NFPA 13, special sprinklers are those that are intended for specific hazards or construction features. **True or False** (Coffee Break Training FP-2010-10)
23. The purpose of Phase I Elevator Recall Operation is to have the elevator automatically return to the roof level before a fire can affect its safe operation. **True or False** (Coffee Break Training FP-2010-2)
24. During hydrostatic pressure testing on portable fire extinguisher containers, the test pressure must be maintained for \_\_\_\_ seconds. (Coffee Break Training FP-2010-9)
- 30**
  - 45**
  - 60**
  - 120**
25. In order to obtain a listing, special sprinklers are subject to customized independent laboratory performance tests that evaluate responsiveness, distribution, and other unique characteristics of the sprinkler to control or suppress a fire. Which of the following is not one of the variables that may be evaluated during listing evaluation? (Coffee Break Training FP-2010-10)
- The location of the fire relative to the sprinklers (i.e., below one sprinkler, between two sprinklers or between four sprinklers).**
  - Fire conditions that encompass a variety of fire growth rates representative of anticipated conditions of use.**
  - Tests where multiple sprinklers are expected to operate.**
  - The total cost of bringing the new sprinkler to market.**
26. Handrail height, measured above the stair tread or finished surface of a ramp should be between 34 to \_\_\_\_ in (864 to \_\_\_\_ mm). The handrail height should remain consistent throughout the length of the stairs or ramp. (Coffee Break Training FP-2010-12)
- 36, 914**
  - 38, 965**
  - 40, 1,016**
  - 42, 1,067**
27. Very extra large orifice sprinklers are designed to control high challenge fires in both palletized and rack storage occupancies using lower water pressures. **True or False** (Coffee Break Training FP-2010-11)
28. Handrails must be firmly attached to the building and be capable of withstanding a load of 50 plf (0.73 kN/m) applied in any direction at the top and to transfer the load through the supports to the structure. **True or False** (Coffee Break Training FP-2010-12)
29. The most common method for automatic actuation of a wet chemical fire protection system for a commercial cooking operation is to use heat detectors. **True or False** (Coffee Break Training FP-2010-13)

30. NFPA 17A, *Standard for Wet Chemical Extinguishing Systems* requires fixed temperature-sensing elements of the fusible metal alloy type be replaced at least \_\_\_\_\_ from the date of installation. (*Coffee Break Training FP-2010-13*)
- weekly**
  - quarterly**
  - semiannually**
  - annually**
31. The term encapsulated does not apply to plastic-enclosed products or packages inside a large, nonplastic, enclosed container. **True or False** (*Coffee Break Training FP-2010-6*)
32. Generally, fire protection water pipe should not be run under buildings but there may be circumstances where that is unavoidable. Which of the following precautions is acceptable where pipe must be run under buildings? (*Coffee Break Training FP-2010-4*)
- Arching the foundation walls over the pipe.**
  - Running pipe in covered trenches.**
  - Providing valves to isolate sections of pipe under buildings.**
  - Any of the above**
33. NFPA 17A allows fixed temperature-sensing elements other than the fusible metal alloy type (bulb type) to remain continuously in service, provided they are inspected and cleaned every 6 months. **True or False** (*Coffee Break Training FP-2010-13*)
34. “May be used for fire exposure protection from one closely located building to another and to protect steel beams and columns to preserve structural integrity” describes the application of which type of special sprinkler? (*Coffee Break Training FP-2010-11*)
- In-rack.**
  - Attic.**
  - Institutional.**
  - Flat spray.**
  - Window.**
35. If a unit load of combustible commodities is wrapped with a plastic sheet completely enclosing the sides and top (all six faces) it is classified as “encapsulated.” On the other hand, if it is wrapped only on four sides, it is said to be “banded.” **True or False** (*Coffee Break Training FP-2010-6*)