



Coffee Break Training - Fire Protection Series

Inspection Techniques: Inspecting Dry Chemical Fire Suppression Systems

No. FP-2010-39 September 28, 2010

Learning Objective: The student shall be able to recite the inspection requirements for dry chemical suppression systems.

Dry chemical fire suppression systems provide protection for many flammable and combustible liquid (Class B) fire hazards. They are particularly suited for outdoor environments where concerns about freezing prevent the installation of water-based systems.

The system owner is responsible for a monthly inspection to ensure the equipment remains in an operable condition. The inspection must be conducted in accordance with the manufacturer's listed installation and maintenance manual or owner's manual.

The inspection should include a check of the following components to verify that:

- Neither the protected equipment nor the hazard has been replaced, modified, or relocated. In this example, there should be no changes to the fuel dispensing equipment.
- The extinguishing system is in its proper location. The discharge pipe should not be bent or otherwise damaged.
- The manual release devices are unobstructed and accessible to motorists or the station operator.
- The tamper indicators and seals are intact.
- The maintenance tag or certificate is in place.
- The system shows no physical damage or condition that might prevent operation.
- The pressure gauge(s), if provided, are in the operable range.
- The nozzle blowoff caps, where provided, are intact and undamaged. (There are no nozzle blowoff caps on the pictured system.)



This dry chemical system beneath a service station canopy should be inspected by the owner monthly.

The inspection date and the initials of the person performing the inspection should be recorded, and the records maintained until the next semiannual service.

At least semiannually, maintenance shall be conducted in accordance with the manufacturer's listed installation and maintenance manual. This maintenance should include

- a check to see that the hazard has not changed;
- an examination of all detectors, expellant gas container(s), agent container(s), releasing devices, piping, hose assemblies, nozzles, signals, and all auxiliary equipment;
- verification that the agent distribution piping is not obstructed; and
- examination of the dry chemical.

If there is evidence of caking, the dry chemical must be discarded and the system recharged in accordance with the manufacturer's instructions.

For additional information, refer to the National Fire Protection Association (NFPA) 17, *Standard for Dry Chemical Extinguishing Systems*.



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