

**REPLACE DAMAGED, CORRODED OR PAINTED FIRE SPRINKLERS/  
FIRE DEPARTMENT CONNECTION CAPS**

Violation #18

CODE SECTIONS

*International Fire Code 2012 Edition*

**I101.1 General.** This appendix is intended to identify conditions that can occur when fire protection systems are not properly maintained or components have been damaged. This appendix is not intended to provide comprehensive inspection, testing and maintenance requirements, which are found in NFPA 10, 25 and 72. Rather, its intent is to identify problems that are readily observable during fire inspections.

**I101.2 Noncompliant conditions requiring component replacement.** The following conditions shall be deemed noncompliant and shall cause the related component(s) to be replaced to comply with the provisions of this code:

1. Sprinkler heads having any of the following conditions:

- 1.1. Signs of leakage;
- 1.2. Paint or other ornamentation that is not factory applied;
- 1.3. Evidence of corrosion including, but not limited to, discoloration or rust;
- 1.4. Deformation or damage of any part;
- 1.5. Improper orientation of sprinkler head;
- 1.6. Empty glass bulb;
- 1.7. Sprinkler heads manufactured prior to 1920;
- 1.8. Replacement sprinkler heads that do not match existing sprinkler heads in orifice size, K-factor temperature rating, coating or deflector type; or
- 1.9. Sprinkler heads for the protection of cooking equipment that have not been replaced within one year.

2. Water pressure and air pressure gauges that have been installed for more than five years and have not been tested to within 3 percent accuracy.

**I101.3 Noncompliant conditions requiring component repair or replacement.** The following shall be deemed noncompliant conditions and shall cause the related component(s) to be repaired or replaced to comply with the provisions of this code:

1. Sprinkler and standpipe system piping and fittings having any of the following conditions:

- 1.1. Signs of leakage;
- 1.2. Evidence of corrosion;
- 1.3. Misalignment; or
- 1.4. Mechanical damage.

2. Sprinkler piping support having any of the following conditions:

- 2.1. Materials resting on or hung from sprinkler piping;
- 2.2. Damaged or loose hangers or braces.

3. Class II and Class III standpipe systems having any of the following conditions:

- 3.1. No hose or nozzle, where required;
- 3.2. Hose threads incompatible with fire department hose threads;
- 3.3. Hose connection cap missing;
- 3.4. Mildew, cuts, abrasions and deterioration evident;
- 3.5. Coupling damaged;
- 3.6. Gaskets missing or deteriorated; or
- 3.7. Nozzle missing or obstructed.

4. Hose racks and cabinets having any of the following conditions:

- 4.1. Difficult to operate or damaged;
- 4.2. Hose improperly racked or rolled;
- 4.3. Inability of rack to swing 90 degrees (1.57 rad) out of the cabinet;
- 4.4. Cabinet locked, except as permitted by this code;

**REPLACE DAMAGED, CORRODED OR PAINTED FIRE SPRINKLERS/  
FIRE DEPARTMENT CONNECTION CAPS**

Violation #18 (cont.)

**I101.3 Noncompliant conditions requiring component repair or replacement (cont.)**

- 4.5. Cabinet door will not fully open; or
- 4.6. Door glazing cracked or broken.
5. Portable fire extinguishers having any of the following conditions:
  - 5.1. Broken seal or tamper indicator;
  - 5.2. Expired maintenance tag;
  - 5.3. Pressure gauge indicator in "red";
  - 5.4. Signs of leakage or corrosion;
  - 5.5. Mechanical damage, denting or abrasion of tank;
  - 5.6. Presence of repairs such as welding, soldering or brazing;
  - 5.7. Damaged threads; or
  - 5.8. Damaged hose assembly, couplings or swivel joints.
6. Fire alarm and detection control equipment, initiating devices and notification appliances having any of the following conditions:
  - 6.1. Corroded or leaking batteries or terminals;
  - 6.2. Smoke detectors having paint or other ornamentation that is not factory-applied;
  - 6.3. Mechanical damage to heat or smoke detectors; or
  - 6.4. Tripped fuses.
7. Fire department connections having any of the following conditions:
  - 7.1. Fire department connections are not visible or accessible from the fire apparatus access road;
  - 7.2. Couplings or swivels are damaged;
  - 7.3. Plugs and caps are missing or damaged;
  - 7.4. Gaskets are deteriorated;
  - 7.5. Check valve is leaking; or
  - 7.6. Identification signs are missing.
8. Fire pumps having any of the following conditions:
  - 8.1. Pump room temperature is less than 40°F (4.4°C);
  - 8.2. Ventilating louvers are not freely operable;
  - 8.3. Corroded or leaking system piping;
  - 8.4. Diesel fuel tank is less than two-thirds full; or
  - 8.5. Battery readings, lubrication oil or cooling water levels are abnormal.

**EXPLANATION**

No fire sprinkler may be painted unless the paint is applied by the manufacturer and has received a listing for the painted head. As a tenant or building owner, you may not paint the fire sprinkler heads for esthetic or corrosion resistance reasons.

**RATIONALE**

Fire sprinklers are designed by the manufacturer to meet specific operating criteria. If the manufacturer applies a paint coat, the fire sprinkler must still meet the operating criteria and has passed tests to verify this. When paint is applied to the fire sprinkler by an unauthorized process, the operational characteristics will change, thus possibly rendering the head ineffective. Paint could delay the activation of the fire sprinkler and can also change the spray pattern issued from the head.

Caps must be securely placed on the fire department connection inlets to inhibit tampering or vandalism of the device. Often times, objects such as paper, rocks, soda cans, or other obstructions are forced into the inlets which would then severely limit the Fire District's ability to utilize the fire sprinkler system to control a fire in your building.