

FIRE PROTECTION EQUIPMENT PERFORMANCE TESTS

In addition to weekly tests, numerous other fire protection equipment performance tests may be made during the year. When these tests involve shutting off fire protection, proper impairment handling procedures must be followed (see *OVERVIEW*, Section 1 [PRC.1.1.0]). Testing which involves flow of water should be conducted during periods of the year in which freezing is not a problem. Routine maintenance of fire protection equipment is appropriately covered in PRC.1.3.0.A, Maintenance Inspections.

ANNUAL TESTS

- Flow test all fire protection water supplies. These include individual performance tests of fire pumps, gravity tanks, pressure tanks, standpipes, reservoirs, connections to public water systems, and automotive fire apparatus.
- Trip test pre-action sprinkler systems and deluge sprinkler systems.
- Examine fire hose and hydrostatically test it to the maximum available system pressure.
- Test explosion-relief vents to be certain they will operate.
- Test fire doors and shutters to be certain they will operate. Close the door or shutter by tripping the detector or removing the fusible link.
- Trip test all dry pipe valves. A full flow test should be conducted every three years.

SEMI-ANNUAL TESTS

- Test (fully open and close) and lubricate all hydrants.
- Trip test quick opening devices on dry pipe sprinkler systems.
- Test detection, actuation, and alarms on deluge, pre-action, carbon dioxide, foam, dry chemical, explosion suppression, and spark extinguishing systems at least twice a year. A functional test of the entire system should be conducted annually.

PERIODIC TESTS

- Flow test public water supplies from public hydrants where private hydrants are not available. Tests should be conducted at least every five years by public water department personnel.
- Insist that the manufacturer's representative, contractor, or installer perform an acceptance test for each piece of newly installed fire protection equipment in accordance with proper procedures. This test should be run before the equipment is put in service.
- Test the detectors on each automatic fire alarm system semiannually in accordance with NFPA 72.
- Test protective signaling systems quarterly in accordance with NFPA 72.
- Test and recalibrate combustible gas detection equipment monthly. Those that are located in severe environments should be tested and recalibrated more frequently.