

Property/Building Owners Life-Safety Responsibilities

Responsibility for the maintenance of fire and life safety systems (essential safety measures) in a building ultimately lies with the building owner. Building Owners need to be aware of their obligations.

Most Jurisdictions in the United States follow the National Fire Protection Association's Standards (NFPA); however, some Jurisdictions have adopted other standards or local ordinances that may vary from the NFPA's. This document is only meant to be a general guide.

I. Fire Extinguishers – NFPA 10

- Buildings shall be equipped with fire extinguishers to match the Occupancy Classification and the Hazard Classification.
- **Extinguishers shall be inspected monthly**; procedures for an inspection are as follows:
 1. Location in designated place
 2. No obstructions to access or visibility
 3. Pressure gauge reading or indicator in the operable range or position
 4. Fullness determined by weighing or hefting
 5. Condition checked of tires, carriage, hose and nozzle for wheeled extinguishers
 6. Indicators for non-rechargeable extinguishes checked using push-to-test pressure indicators
 7. Verify that operating instructions on nameplates are legible and facing outward
 8. Check for broken or missing safety seals and tamper indicators
 9. Examine for obvious physical damage, corrosion, leaking or clogged nozzles
 10. Corrective action shall be taken for any deficiencies
 11. Personnel performing the inspection shall keep records of all fire extinguishers inspected and any necessary corrective actions. Usually extinguishers have attached an Annual Maintenance tags, the back of the tags have spaces to initial for the monthly inspection, initialing the tag serves as the "record of inspection".
- **Extinguishers shall be subject to an Annual Maintenance**
 1. Persons performing the annual maintenance shall be certified or under the direct supervision of a certified person
 2. Certification requires that a person pass a test administered by an organization acceptable to the Authority Having Jurisdiction (AHJ).
 3. Records of Annual Maintenance shall be kept
- **Employees shall be trained on the proper use of extinguishes by a qualified person**

II. Fire Alarm Systems – NFPA 72

- The property owner or the owner's designated representative shall be responsible for the Inspecting, Testing and Maintenance of the system
- Inspection, Testing and Maintenance shall be permitted to be done by the building owner or a person or organization other than the building owner if conducted under a written contract
- Testing and maintenance of central station monitoring shall be performed under a contractual arrangement
- Prior to any testing all persons and facilities receiving alarm system notification and all occupants shall be notified to prevent unnecessary response, upon conclusion of the test all parties should be notified that the testing has been concluded.
- **Fire Alarm Systems shall be inspected and tested annually.** Certain components, such as power supply and back-up batteries shall be checked more frequently as per NFPA. However, most panels will warn of low battery functions or any other system failures (ground faults...). Any and all system trouble indications should be acted upon and corrected immediately by either qualified/trained in-house personnel or an outside vendor.

- Records of all inspections, testing and maintenance shall be kept and made available to Authorities Having Jurisdiction

III. Sprinkler Systems – NFPA 25

- The property owner or the owner’s designated representative shall be responsible for the Inspecting, Testing and Maintenance of the system(s)
- Sprinkler systems come in four basic types
 1. **Wet Systems:** By far the most common type in which the sprinkler piping is filled with water under pressure. When a sprinkler head operates (the fusible element melts) the water immediately discharges until the system is shut off. In unheated areas antifreeze solutions are available.
 2. **Dry-Pipe Systems:** These systems are used in unheated areas to prevent the water from freezing. The piping contains pressurized air or nitrogen that keeps a clapper within the dry-pipe valve closed. When a sprinkler head operates it releases the pressure, opens the clapper and allows water to flow.
 3. **Precision Systems:** Similar to dry-pipe systems and normally used in areas highly susceptible to damage from an accidental sprinkler head operation. The piping is not under pressure but instead the water is held out of the piping by a precision valve. The valve is controlled by a detection system, usually heat or smoke detectors.
- **Deluge System:** Similar to a precision system except the sprinkler heads are in an open position (they have no fusible element). Water discharges from all heads or nozzles rather than just a head or heads that have activated. This system is used in high-hazard occupancies.
- **Inspection, Testing and Maintenance:** Sprinkler system maintenance requirements are complicated, a summary of the requirements can be found in NFPA 25, table 5.1.1.2; unless there are qualified personnel on site it’s recommended to use a qualified vendor.
- **Inspections Frequency:** (In general)
 1. Gauges – monthly
 2. Alarm and Supervisory devices – quarterly
 3. Hydraulic nameplate - quarterly
 4. Piping, hangars, sprinkler heads – annually
- **Testing Frequency:** (In General)
 1. Waterflow alarm devices and Mechanical devices – quarterly
 2. Vane and pressure switch devices – semiannually
 3. Main drain and antifreeze solution – annually
 4. Gauges and extra high temperature sprinkler heads – 5 years
 5. Sprinkler heads in a dry-pipe system – At 10 years and every 10 years thereafter
 6. Fast response sprinkler heads – At 20 years and every 10 years thereafter
 7. Normal range wet system sprinkler heads – At 50 years and every 10 years thereafter
- **Maintenance Frequency:**
 1. All valves, Low-point drains (dry-pipe systems) – annually
 2. Sprinklers and nozzles protecting commercial cooking equipment and ventilation systems – annually
- A supply of sprinklers (minimum of 6) corresponding to the types and temperatures used on the premises shall be kept in a cabinet located where temperatures will at no time exceed 100 degree F; as shall an appropriate sprinkler wrench(s).
- Records of all inspections, testing and maintenance shall be kept and made available to Authorities Having Jurisdiction.

IV. Backflow Devices

- Sprinkler systems utilizing municipal water supplies shall be equipped with backflow devices. These devices are designed to prevent stale water stored in sprinkler piping from backing up into the general water supply.
- Backflow devices shall be inspected and tested annually by a qualified person.
- Records of all inspections, testing and maintenance shall be kept and made available to Authorities Having Jurisdiction.

V. Fire Pumps – NFPA 20

- Fire Pumps and Jockey Pumps are utilized to supply sufficient water pressure for sprinkler system operations when the residual water supply pressure is insufficient.
- Pumps shall be inspected, tested and maintained annually by a qualified person.
- Records of all inspections, testing and maintenance shall be kept and made available to Authorities Having Jurisdiction

VI. Emergency and Exit Lights - NFPA 101

- All Exits shall be clearly marked
- All paths of egress shall be illuminated, even in power loss situations
- Maintenance
- Exit light bulbs shall be replaced as needed
- Emergency Lights shall be “button tested” monthly
- Emergency lights shall be fully tested annually
- Records of the annual test should be maintained

VII. Special Hazard Suppression Systems – NFPA 11, 12 13 & 17

- Special hazard systems range from liquid to dry chemical to clean agent gasses; they are normally used for highly flammable operations or in areas where water may be ineffective or harmful to the equipment being protected.
- As a general rule: These systems should be inspected and tested by a qualified person semi-annually
- Records of the Inspections should be maintained

For more detailed information please contact your local Authority Having Jurisdiction (Fire Marshal or Fire Prevention Bureau) or your Life Safety Systems service provider/contractor.

Reference sites:

www.nfpa.org National Fire Protection Association
www.iccsafe.org International Code Council