NEW YORK STATE | Department of Health

Overview: New York State Adult Care Facilities

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Adult Care Facilities

Fire Protection Systems Maintenance And Facility Operator Responsibilities

Facility Operator Responsibilities

Fire Detection and Alarm Systems

- A key aspect of fire protection is the timely identification of a developing fire emergency and to alert the building's occupants and fire emergency organizations.

Depending on the anticipated fire scenario, building and use type, number and type of occupants and other factors, these systems can provide several main functions:

- First, they provide a means to identify a developing fire through either manual or automatic methods
- Second, they alert building occupants to a fire condition and the need to evacuate.
- Another common function is the transmission of an alarm notification signal to the fire department or other emergency response organization.
- They may also shut down electrical, air handling equipment or special process operations, and they may be used to initiate automatic suppression systems.
- Proper testing, inspection and maintenance of the various systems are critical to establishing the reliability of the system.

Periodic Testing

WHEN DO FIRE ALARMS NEED TO BE INSPECTED & TESTED?

Inspection, Testing, and Maintenance of Fire Alarms

The inspection, testing and maintenance requirements of fire alarms systems, including their initiating devices and notification appliances, can be found in Chapter 14 of the National Fire Protection Association's (NFPA's) Code NFPA 72. The purpose for these inspection, testing, and maintenance requirements is to ensure that the fire alarm system is operating properly in accordance with the design documents. *[Also see 2020 Fire Code of NYS, Section 901.6 Inspection, testing and maintenance.]*

Fire Alarm Visual Inspection Schedule

Visual inspections of fire alarm components are to be done weekly, monthly, semiannually, and/or annually in accordance with the schedules in table 14.3.1 of NFPA 72. These schedules can change depending on the local jurisdiction and the authority having jurisdiction. Some of the most common visual inspections include:

- Control equipment must be checked weekly to verify that the fire alarm system is in normal condition. This includes visually inspecting the fuses, LEDs, power supply, and checking for trouble signals.
- Batteries must be inspected on a monthly or semiannual basis (depending on type) for corrosion or leakage.
- Duct detectors, heat detectors, and smoke detectors must be checked on a semiannual basis.
- All equipment must be checked annually to ensure there are no changes that affect performance.

Fire Alarm Testing Schedule

Testing of fire alarm components are much more detailed than visual inspections and are scheduled less frequently. While there are a few fire alarm components that require semiannual testing, most require annual testing according to table **14.4.3.2 of NFPA 72**. However, the testing schedule can change depending on the local jurisdiction and other factors. A few of the many component testings include:

- Control equipment must be tested annually to verify correct receipt of alarm, supervisory, and trouble signals. All interfaced equipment must be operated or simulated to verify the signals are transmitted to the control unit.
- Fire alarm control unit trouble signals, both audible and visual, must be tested and verified annually.
- The secondary power supply (backup battery) must be tested by disconnecting all primary power supplies. Batteries must also be tested to verify the voltage level does not fall below the required 2.05 volts per cell under load.
- Initiating devices must be tested to ensure they operate per design and transmit their signal to the control unit. This means heat detectors require a heat test and smoke detectors must be tested with smoke or approved smoke simulant.
- Alarm notification appliances must be tested and verified that they operate correctly audibly and visually.
- Many fire alarms systems are integrated with mass notification systems and other specialized components that also must be tested according to NFPA 72 guidelines.

Fire Alarm Maintenance Schedule

- Maintenance of fire alarm components is in accordance with the manufacturer's published instructions. The frequency or schedule of maintenance depends on the type of equipment and environmental conditions.
- Cleaning of fire alarm system components depends on the environment where the component is installed and according to manufacturer's guidelines. If any component is replaced or repaired, testing may be required according to the authority having jurisdiction or table **14.4.3.2 of NFPA 72.**
- The 2020 Fire Code of New York State, **Table 901.6.1**, lists the NFPA referenced standards to be used for the inspection, testing and maintenance criteria for various fire protection systems.
- https://codes.iccsafe.org/content/NYSFC2020P1/chapter-9-fire-protection-and-life-safety-systems

Records

- Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained. (2020 Fire Code of NYS Section 901.6.3)
- Accurate, up-to-date records are required to document the history of system inspection, testing and maintenance. Recordkeeping is intended to assist the owner or their agent in performing these functions.
- A well-kept log helps an owner or technician determine how the system is performing over time and how changes inside and outside of the protected premises are affecting system performance. A history of accidental alarms at a specific smoke detector may indicate that the device requires cleaning or maintenance.

Systems Impaired Or Out of Service

Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall be either **evacuated** or an **approved fire watch** shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service. **(2020 Fire Code of NYS Section 901.7)**

Note: Per regulation, the Department of Health also must be notified immediately of evacuation or fire watch.

Systems Out Of Service

- The protection afforded by a required fire protection system must not be diminished in any existing building except for the purpose of conducting tests maintenance or repairs. The length of service interruptions must be kept to a minimum. The fire department and the fire code official must be notified of any service interruptions, and carefully evaluate the continued operation or occupancy of buildings where protection is interrupted.

- Whenever possible all unaffected portions of the system should be kept in service.

- The code text only addresses when a *required system* is placed out of service. However, if a system is in place even though it is not required by code, it would be an appropriate courtesy to inform the fire department of any fire protection system being discontinued or temporarily taken out of service. Nonrequired equipment that has been taken out of service or cannot function as intended must be dismantled and removed to prevent creating a false impression of protection.

Impairment Coordinator

- The building owner shall assign an impairment coordinator to comply with the requirements of this section. In the absence of a specific designee, the owner shall be considered the impairment coordinator.
- The impairment coordinator is the person responsible for maintaining the building fire protection systems. The impairment coordinator may be the building owner or a designee trained to comply with the provisions of 2020 Fire Code of NYS Section 901.7.

System Impairments

901.7.2 Tag required, 2020 Fire Code of NYS.

- A tag shall be used to indicate that a system, or portion thereof, has been removed from service.

- When any fire protection system is taken out of service, it must be clearly identified with a visible tag that indicates the conditions of the impairment and who to notify. The tag is intended to alert building occupants and fire department personnel that the system in question is impaired. It must remain visibly in place until full protection is restored.

901.7.3 Placement of tag, 2020 Fire Code of NYS.

- The tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center, indicating which system, or part thereof, has been removed from service. The fire code official shall specify where the tag is to be placed and the final location of all impairment tags is subject to the approval of the fire code official.
- Tagging a fire department connection is intended to alert the responding fire department that a normal condition does not exist for the portion of the system beyond the connection.

Preplanned System Impairments

901.7.4 Preplanned impairment programs. 2020 Fire Code of NYS.

- Preplanned impairments shall be authorized by the impairment coordinator after that individual verifies that ***all*** of the following have been implemented:

  - ❑ The extent and expected duration of the impairment have been determined.
  - ❑ The impacted areas or buildings have been inspected and the increased risks determined.
  - ❑ Recommendations have been submitted to management or the building owner management.
  - ❑ The fire department has been notified.
  - ❑ The insurance carrier, the alarm company, the building owner/manager, the regional office of the Department of Health, and other authorities having jurisdiction have been notified.
  - ❑ The supervisors in the affected areas have been notified.
  - ❑ A tag impairment system has been implemented.
  - ❑ Necessary tools and materials have been assembled on the impairment site.

Preplanned System Impairments (continued)

- This section specifies the procedures that must be followed in a thorough preplanned impairment program. These procedures must be followed whenever systems are purposely impaired, such as for routine sprinkler system alarm testing. Proper notification of responsible parties eliminates the chance of false alarms, reduces disruption of normal business activities and encourages quick resumption of normal activities.

Emergency Impairments

- **901.7.5 Emergency impairments 2020 Fire Code of NYS.** Where unplanned impairments occur, appropriate emergency action shall be taken to minimize potential injury and damage. The impairment coordinator shall implement the steps outlined in Section 901.7.4.

- Unplanned impairments go beyond typical testing and maintenance procedures but are also not necessarily indicative of a fire event. The impairment coordinator must follow the procedures in Section 901.7.4 to restore protection in minimum time.

Restoring Systems to Service

- **901.7.6 Restoring systems to service, 2020 Fire Code of NYS**. Where impaired equipment is restored to normal working order, the impairment coordinator shall verify that all of the following procedures have been implemented.
- Necessary inspections and tests have been conducted to verify that the affected systems are operational.
- Supervisors have been advised that protection is restored.
- The fire department has been advised that protection is restored.
- The building owner/manager, insurance carrier, alarm company, appropriate regional office of the Department, and other involved parties have been advised that protection is restored.
- The impairment tag has been removed.

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Restoring Systems to Service (continued)

- Regardless of whether a system is taken out of service for either a planned impairment or for an emergency, this section specifies the procedures to follow when restoring a system to service.
- By following these procedures, all responsible parties who were informed of the initial impairment will also be made aware that the system is now fully operational.
- Restoring the system to service assumes the affected part of the system has been corrected and is in proper working condition.

Conclusion

- Building owners and facility operators are responsible for the maintenance, required testing and record retention for the fire protection systems in their facilities. Inspection and maintenance schedules must be followed. Each facility shall have a representative responsible for maintaining records and implementing alternate procedures to protect building occupants.
- When a component of a fire protection system is impaired, alternate methods must be implemented to provide for the continued safety of the facility's occupants until the life safety systems are restored to the systems proper working condition.
- For any questions, please outreach the appropriate regional office adult care facility program team or write the Division of Adult Care Facility and Assisted Living Surveillance at acfinfo@health.ny.gov.

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