
BURGLAR & FIRE ALARM
ESTABLISHED 1981
ASSOCIATION OF MICHIGAN
APPRENTICESHIP PROGRAM

BURGLAR & FIRE ALARM ASSOCIATION OF MICHIGAN ESTABLISHED 1981

APPRENTICESHIP PROGRAM

Period 2
Related Training Instruction (RTI)
Module 6 – NFPA 72 Inspection, Testing, and Maintenance

Reading material associated with this module:
Chapter 14
NFPA 72, National Fire Alarm Code, 2022 Edition

BURGLAR & FIRE ALARM ASSOCIATION OF MICHIGAN ESTABLISHED 1981

APPRENTICESHIP PROGRAM

NFPA 72
National Fire Alarm Code
2022 Edition
Chapter 14 – Inspection, Testing, and Maintenance

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- Introduction:
  - *Chapter 14 addresses the minimum requirements for the inspection, testing, and maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, emergency communications systems (ECSs), single- and multiple-station smoke, heat, and carbon monoxide (CO) alarms, and household signaling systems.*
  - *The scope of this chapter as it might apply to other systems interfaced with the fire alarm or signaling system in a building is a common concern. While fire alarm systems interface with, monitor, and may control a variety of other building fire protection systems and features, the requirements of NFPA 72 only cover the fire alarm and protective signaling systems. The inspection, testing, and maintenance of other building fire safety systems and features are addressed by other relevant codes and standards.*

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.1 Application:
  - Procedures that are required by other parties and that exceed the requirements of this chapter shall be permitted.
  - The requirements of this chapter apply to both new and existing systems.
  - The documentation requirements of chapter 7 shall apply where referenced in this chapter.

14.1.3, 14.1.4, 14.1.5

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - The purpose of initial and reacceptance inspections shall be to verify compliance with approved design documents and to ensure installation in accordance with this code and other required installation standards.
  - The purpose of initial and reacceptance testing shall be to ensure system operation in accordance with the design documents.
  - The purpose of periodic inspections shall be to assure that obvious damage or changes that might affect the system operation are identified.
  - The purpose of periodic testing shall be to statistically assure operational reliability.
  - Inspection, testing, and maintenance programs shall satisfy the requirements of this code and conform to the equipment manufacturer's published instructions.

14.2.1.1, 14.2.1.2, 14.2.1.3, 14.2.1.4, 14.2.2.1.1

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - **Impairments:** Where an automatic function of a fire alarm system is taken out of service for testing, and a manual means or other compensating measure is unavailable, the system or portion thereof is impaired and shall comply with the requirements of section 10.21, which addresses impairments, until the automatic function is restored.
  - **Deficiencies: System deficiencies shall be corrected.**
    - If a deficiency is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or designated representative shall be informed of the deficiency in writing within 24 hours.
  - **Recalls:** In the event that equipment is part of a recall, the system owner or designated representative shall be notified in writing.

14.2.2.2, 14.2.2.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - **Observations:** If observations are noted, they shall be permitted to be communicated to the system owner.
    - The system owner shall not be required to address such observations unless the observations become an impairment or deficiency.
    - *3.3.193 Observation: A suggested correction, improvement, or enhancement to the fire alarm or signaling system that is not considered to be an impairment or deficiency, i.e., manufacturer's suggested device replacement, executive software updates, corroded components or connections, or other items not directly impacting the system's ability to perform its intended function at the time the observation is made.*

14.2.2.4, 3.3.193

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - **Responsibilities:** The property or building or system owner or designated representative shall be responsible for inspection, testing, and maintenance of the system and for alterations or additions to the system.
  - Where the property owner is not the occupant, the property owner shall be permitted to delegate the authority and responsibility for inspecting, testing, and maintaining the fire alarm system to the occupant, management firm, or managing individual through specific provisions in the lease, written use agreement, or management contract.
  - Inspection, testing, and maintenance shall be permitted to be done by other than the building or system owner if conducted under a written contract. If responsibility has been delegated to another person or organization, a copy of the written delegation shall be provided to the AHJ upon request.

14.2.3.1, 14.2.3.2, 14.2.3.3, 14.2.3.4

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - Service personnel shall be experienced and qualified and should be able to perform the following:
    - Understand the requirements contained in NFPA 72 and the fire alarm requirements in NFPA 70.
    - Understand basic job site safety laws and requirements.
    - Apply troubleshooting techniques and determine the cause of fire alarm trouble conditions.
    - Understand equipment specific requirements, such as programming, applications, and compatibility.

14.2.3.6, A14.2.3.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - Service personnel shall be experienced and qualified and should be able to perform the following (continued):
    - Read and interpret fire alarm design documentation and manufacturer's inspection, testing, and maintenance guidelines.
    - Properly use tools and test equipment for testing and maintenance of fire alarm systems and their components.
    - Properly apply the test methods required by NFPA 72.

14.2.3.6, A14.2.3.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - 10.5.3.4 Means of qualification:
    - Qualified service personnel qualifications shall include, but not be limited to, one or more of the following:
      - Factory trained and certified for the specific type and brand of system being serviced.
      - Certified by a nationally recognized certification organization acceptable to the AHJ.
      - Registered, licensed, or certified by a state or local authority to perform service on systems addressed within the scope of this code, either individually or through their affiliation with an organization.
      - Employed and qualified by a nationally recognized testing laboratory for the servicing of systems within the scope of this code.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - Before proceeding with any testing, all persons and facilities receiving alarm, supervisory, or trouble signals and all building occupants shall be notified of the testing.
  - At the conclusion of testing, those previously notified (and others, as necessary) shall be notified that testing has been concluded.
  - The owner or owner's representative and service personnel shall coordinate system testing to prevent interruption of critical building systems or equipment.
  - Testing personnel shall be qualified and experienced in the specific arrangement and operation of a suppression system(s) and releasing function(s) and shall be aware of the hazards associated with inadvertent system discharge.
  - Occupant notification is required whenever a fire alarm configured for releasing service is being serviced or tested.

14.2.4.1, 14.2.4.2, 14.2.4.3, 14.2.6.1, 14.2.6.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - Discharge testing of suppression systems shall not by required by this code.
  - Suppression systems shall be secured from inadvertent actuation, including disconnecting releasing solenoids or electric actuators, closing of valves, and other actions, for the specific system, for the duration of the fire alarm system testing.
  - Testing shall include verification that the releasing circuits and components energized or actuated by the fire alarm system are electrically monitored and operate as intended on alarm.
  - Suppression systems and releasing components shall be returned to their functional operating condition upon completion of system testing.
  - *Disabling or impairing any fire protection system requires proper impairment procedures, which may include notification of critical personnel before shutdown, elimination of hazardous operations in the area(s) where the suppression system is impaired, and temporary protection measures.*

14.2.6.3, 14.2.6.4, 14.2.6.5, 14.2.6.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - Interface Equipment and Emergency Control Functions:
    - Testing personnel shall be qualified and experienced in the arrangement and operation of interface equipment and emergency control functions.
    - *As an example, testing of the elevator fire service and shutdown features will usually require a coordinated multi-discipline effort with qualified personnel for the fire alarm system, elevator system, and other building systems.*
  - Automated testing arrangements that provide equivalent means of testing devices to those specified in Table 14.4.3.2, at an equivalent frequency, shall be permitted to be used to comply with the requirements of this chapter.
  - Failure of a device on an automated test shall result in an audible and visual trouble signal.

14.2.8.1, 14.2.8.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.2 General:
  - A test plan shall be developed to clearly establish the scope of testing for the fire alarm or signaling system.
  - The test plan and results shall be documented with the testing records.

14.2.10.1, 14.2.10.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.3 Inspection:
  - Visual inspections shall be performed in accordance with the schedules in Table 14.3.1 for the purpose of verifying there have been no changes that affect equipment performance.
  - *A visual inspection should be conducted prior to any testing. Improperly installed, damaged, or nonfunctional components should be identified, and repaired or corrected, before testing begins.*
  - *The frequencies for visual inspections range from weekly for unmonitored fire alarm control equipment to semi-annual and annual for the majority of equipment.*
  - Devices or equipment that is inaccessible for safety reasons (i.e., continuous process operations, energized electrical equipment, radiation, excessive height) shall be permitted to be inspected during scheduled shutdowns if approved by the AHJ.
  - **Extended intervals shall not exceed 18 months.**

14.3.1, Table 14.3.1, 14.3.2, 14.3.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - All new systems shall be inspected and tested in accordance with the requirements of chapter 14.
  - *All new systems shall be subject to a 100% initial acceptance inspection and test in accordance with chapter 14. No devices, appliances, components, circuits, or functions are exempt from acceptance testing.*
  - The AHJ shall be notified prior to the initial acceptance test.

14.4.1.1, 14.4.1.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Reacceptance testing is performed to verify the proper operation of added or replaced devices, appliances, emergency control function devices, control units and so forth, under the following conditions:*
    - When an initiating device, notification appliance, or control relay is added, it shall be functionally tested.
    - When an initiating device, notification appliance, or control relay is deleted, another device, appliance, or control relay on the circuit shall be operated.
    - When modifications or repairs to control unit hardware are made, the control unit shall be tested in accordance with Table 14.4.3.2, items 2(1) (functions) and 2(4) (indicators).

A14.4.2, 14.4.2.1, 14.4.2.2, 14.4.2.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Reacceptance testing is performed to verify the proper operation of added or replaced devices, appliances, emergency control function devices, control units and so forth, under the following conditions (continued):*
    - When changes are made to site-specific software, the following shall apply:
      - All functions known to be affected by the change, or identified by a means that indicates changes, shall be 100% tested.
      - In addition, 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, shall be tested and correct system operation shall be verified.
      - A revised record of completion shall be prepared to reflect these changes.

A14.4.2, 14.4.2.4

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - Changes to the system executive software shall require a 10% functional test of the system, including a test of at least one device on each input and output circuit to verify critical system functions such as notification appliances, control functions, and off-premises reporting.
  - Where changes are made to system executive software or site-specific software for control equipment or transmitting equipment from a remote location not on the protected premises, such changes shall not be made without an individual, meeting the qualifications for testing personnel (10.5.3.2), service personnel (10.5.3.3), or programming personnel (10.5.3.5) being on site to verify that testing is accomplished in accordance with 14.4.2.

14.4.2.5, 14.4.2.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Fire alarm system testing can be conducted using silent testing and the bypassing of emergency control functions. All input signals should be verified according to the system matrix of operation to ensure they create the appropriate outputs. Tests of audible notification appliances and emergency control functions should be conducted at the conclusion of satisfactory tests of all inputs. All inputs tested in this manner must be proved to cause the appropriate signal by verifying alarm receipt at the controls as each device is actuated. Manufacturer-specific protocols such as "walk test" or "alarm bypass" are an acceptable means of testing under this section. Another method is to test during off-hours when the building is not occupied.*
  - Systems and associated equipment shall be tested according to Table 14.4.3.2.

A14.4.3, 14.4.3.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 2. Control unit shall be tested annually.
    - 3. Control unit trouble signals tested annually.
    - 4. Supervising station alarm systems – transmission equipment tested annually:
      - Actuate initiating device and verify receipt of proper signal at the supervising station within 90 seconds. Upon completion of the test, restore the system to its functional operating condition.
      - DACT connection to two means of transmission shall be verified (unless exempted by a connection to a supervised line).
      - DACT shall be tested for line seizure by sending a signal while primary line is in use for a phone call

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 4. Supervising station alarm systems – transmission equipment tested annually (continued):
      - Primary line shall be disconnected, and a trouble signal must be indicated on premises and at the supervising station within 4 minutes.
      - Secondary line shall be disconnected, and a trouble signal must be indicated on premises and at the supervising station within 4 minutes.
      - Cause the DACT to transmit a signal with the primary line disconnected and verify transmission over the secondary line.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 5. Emergency communications equipment tested annually.
    - 6. Engine-driven generator tested monthly.
    - 8. Sealed lead acid batteries used in fire alarm systems shall be tested semiannually (temperature, charger, cell/unit voltage, ohmic tests), annually (trouble indication, standby/alarm current demand, and load tests), and every 3 years (replacement or load test).

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 15. Conductors (metallic) shall be tested for stray voltage (1V AC/DC max), ground fault isolation, short circuit faults, loop resistance, and circuit integrity.
    - 16. Conductors (fiber optic) shall be tested for power loss and circuit integrity.
    - 17. Initiating devices tested annually in accordance with the following:
      - Non-restorable, fixed temperature, spot type: at least 2 on each circuit tested annually. Different detectors shall be tested each year. Within 5 years, all detectors shall have been tested.
      - Radiant energy detectors tested semi-annually.
      - Control valve switches tested semi-annually.
      - Waterflow switches tested semi-annually.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Fixed temperature, non-restorable spot type: after 15 years from initial installation, replace all devices or have 2 per 100 laboratory tested. Replace the tested detectors with new. Repeat tests at intervals of 5 years. Test functionality mechanically and electrically annually.
      - Smoke detectors shall be tested in place to ensure smoke entry, using smoke, listed aerosol approved by the manufacturer, or other methods listed in the manufacturer's instruction manual.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Smoke detectors and smoke alarms (except in one- and two-family dwellings) shall be tested within one year of installation and every alternate year thereafter to ensure they are within the listed sensitivity range using one of:
        - Calibrated test method.
        - Calibrated test instrument.
        - Listed control equipment for sensitivity testing.
        - Monitored sensitivity (trouble on drift).
        - Other calibrated test method approved by AHJ.
      - Smoke alarms shall be tested monthly per the manufacturer's instructions.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Air sampling detectors shall have the alarm response verified from the end port on each run, and airflow verified at each sample port per the manufacturer's instruction manual.
      - Duct detectors shall be tested or inspected to ensure the airstream is being sampled, per the manufacturer's instruction manual.
      - Projected beam smoke detectors shall be tested by introducing smoke/aerosol or an optical filter into the beam path.
      - Smoke/heat detectors shall have each element tested independently.
      - Smoke detectors which control outputs shall be verified with all initiating devices connected to the same circuit in alarm.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Sprinkler supervisory:
        - Valves shall be operated.
        - Pressure switches shall be operated.
        - Room temperature and water temperature switches shall be operated.
        - Water level switches shall be operated.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Sprinkler waterflow:
        - Water shall be flowed through the inspector's test connection for wet systems.
        - Inspectors test connection shall have a water flow rate equal to that of the smallest orifice sprinkler head on the system.
        - Alarm test bypass connection shall be operated for dry, pre-action and deluge systems.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 17. Initiating devices tested annually in accordance with the following (continued):
      - Multi-criteria or multi-sensor detectors:
        - Each detection principle shall be tested independently.
        - Testing shall be by introduction of physical phenomena to sensor(s).
        - If individual sensors cannot be tested individually, the primary sensor shall be tested.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 22. Notification appliances shall be initially / reacceptance tested in accordance with the following (continued):
      - Audible:
        - Sound pressure level (dBA) shall be measured and recorded throughout the protected area.
        - Sound pressure level (dBA) in alarm condition shall be measured and recorded.
        - Where voice messages are used, they shall be distinguishable and understandable.
      - Annual testing consists of verifying operation of the device.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 22. Notification appliances shall be initially / reacceptance tested in accordance with the following (continued):
      - Visual:
        - Verify appliance locations to be per the approved layout and confirm no floor plan changes affect the approved layout.
        - Verify the candela rating with the approved drawings.
        - Confirm that each device flashes.
      - Annual testing consists of verifying that each appliance flashes.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 24. For initial, reacceptance, and annual periodic testing, verify emergency control function interface device activation for all emergency control functions (door holders, smoke dampers, AHU shutdown) by creating or simulating an alarm condition.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - *Table 14.4.3.2:*
    - 27. Supervising station alarm systems – receiving equipment:
      - Each line shall be disconnected from the receiver, and an audible and visual indication of a trouble signal shall be verified in the supervising station on a monthly basis.
      - Each line shall be verified that a signal is received at least once every 6 hours.

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - For all carbon monoxide (CO) system detectors, CO tests shall be performed at initial acceptance and annually by the introduction of CO into the sensing chamber element.
  - Unless otherwise permitted by other sections of this code, testing shall be performed in accordance with the schedules in Table 14.4.3.2 or more often if required by the authority having jurisdiction.
  - If automatic testing is performed at least weekly by a remotely monitored fire alarm control unit specifically listed for the application, the manual testing frequency shall be permitted to be extended to annually. Table 14.4.3.2. shall apply.

14.4.3.5, 14.4.4, 14.4.4.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - In other than one- and two-family dwellings, sensitivity of smoke detectors shall be tested as follows:
    - Sensitivity shall be checked within one year after installation.
    - Sensitivity shall be checked every alternate year thereafter unless otherwise permitted by compliance with the following:
      - After the second required calibration test, if sensitivity tests indicate that the device has remained within its listed and marked sensitivity range, the length of time between calibration tests shall be permitted to be extended to a maximum of 5 years.
    - If the frequency is extended, records of nuisance alarms and subsequent trends of these alarms shall be maintained.

14.4.4.3, 14.4.4.3.1, 14.4.4.3.2, 14.4.4.3.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - In other than one- and two-family dwellings, sensitivity of smoke detectors shall be tested as follows:
    - In zones or areas where nuisance alarms show any increase over the previous year, calibration tests shall be performed.
    - Unless otherwise permitted by the following, smoke detectors found to have a sensitivity outside the listed and marked sensitivity range shall be cleaned and recalibrated or be replaced.
      - Smoke detectors listed as field adjustable shall be permitted to either be adjusted within their listed and marked sensitivity range, cleaned and recalibrated, or be replaced.
    - The detector sensitivity shall not be tested or measured using any device that administers an unmeasured concentration of smoke or aerosol into the detector or smoke alarm. 14.4.4.3.3.2,14.4.4.3.4, 14.4.4.3.5, 14.4.4.3.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - Test frequency of interfaced equipment shall be the same as specified by the applicable NFPA standards for the equipment being supervised.
    - *Fire detection and alarm equipment installed as part of a special suppression system or dedicated function fire alarm system is tested in accordance with the applicable standard for the system.*
  - Circuit and pathway testing of each monitored circuit or pathway shall be conducted with initial acceptance or reacceptance testing to verify signals are indicated at the control unit for each of the abnormal conditions specified in sections 23.5 (IDC), 23.6 (SLC), and 23.7 (NAC).
  - *It is not intended to require testing the pathways at every device or circuit junction.*

14.4.4.4, 14.4.4.6, A14.4.4.6

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - Single- and multiple-station alarms and connected appliances shall be inspected, tested, and maintained monthly in accordance with Tables 14.3.1 and 14.4.3.2, and the manufacturer's published instructions.
  - Alarms and connected appliances shall be replaced when they fail to respond to operability tests.
  - Smoke alarms shall not remain in service longer than 10 years from the date of manufacture, unless otherwise provided by the manufacturer's published instructions.
  - Carbon monoxide alarms shall be replaced when either the end-of-life signal is actuated or the manufacturer's replacement date is reached.

14.4.5.1, 14.4.5.2, 14.4.5.5, 14.4.5.6, 14.4.5.7

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - Combination smoke/CO alarms shall be replaced when the end-of-life signal actuates or 10 years from the date of manufacture, whichever comes first, unless otherwise provided by the manufacturer's published instructions.
  - When batteries are used as a source of energy for fire alarms, the batteries shall be replaced in accordance with the manufacturer's published instructions.

14.4.5.8, 14.4.5.9

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.4 Testing:
  - Household fire alarm systems shall be inspected, tested, and maintained at least annually according to Tables 14.3.1 and 14.4.3.2, and the manufacturer's published instructions.
  - Household CO detection systems shall be tested by a qualified service technician at least every 3 years per line 1 of Table 14.4.3.2.
  - Household CO detection systems shall be tested in accordance with the manufacturer's published instructions.

14.4.6.1, 14.4.8.1.1, 14.4.8.1.2

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.5 Maintenance:
  - System equipment shall be maintained in accordance with the manufacturer's published instructions.
  - The frequency of maintenance and cleaning of system equipment shall depend on the type of equipment and the local ambient conditions.

14.5.1, 14.5.2, 14.5.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.6 Records:
  - The system owner shall be responsible for maintaining the records of the acceptance tests, approved by the AHJ, for the life of the system for examination by any AHJ. Paper or electronic media shall be permitted.
  - Maintenance, inspection, and testing records shall be retained until the next test and for 1 year thereafter.
  - For systems with restorable fixed-temperature, spot-type heat detectors tested over multiple years, records shall be retained for the 5 years of testing and for 1 year thereafter.
  - The records shall be on a medium that will survive the retention period. Paper or electronic media are permitted.

14.6.1.3, 14.6.2.1, 14.6.2.2, 14.6.2.3

NFPA 72, 2022 Edition

Chapter 14 – Inspection, Testing, and Maintenance:

- 14.6 Records:
  - For supervising station alarm systems, records pertaining to signals received at the supervising station that result from maintenance, inspection, and testing shall be maintained for not less than 12 months. Paper or electronic media is permitted.
  - Upon request, a hard copy record shall be provided to the AHJ.
  - If the operation of a device, circuit, fire alarm control unit function, or special hazard system interface is simulated, it shall be noted on the inspection/test form that the operation was simulated.

14.6.3, 14.6.3.1, 14.6.3.2, 14.6.4

END OF PERIOD 2 – MODULE 6