

# FIRE ALARM SYSTEM SERVICE CONTRACT

## I. GENERAL CONTRACT REQUIREMENTS

- A. Contractor shall perform all inspections and testing in accordance with and as identified in the following guidelines and standards:

Fire Code of New York State (19 NYCRR Part 1225) and the National Fire Alarm Code, NFPA 72 (2007) as incorporated therein.

14 NYCRR Part 635

The inspection, testing, and maintenance program of this contract shall satisfy the requirements of NFPA 72, shall conform to the equipment manufacturer's recommendations, and shall verify reliable operation of the fire alarm system. See Appendix A for a listing of building sites covered under the scope of this contract.

- B. Definitions:

**Inspection:** A visual examination of a system or portion thereof to verify that it appears to be in operating condition and is free from physical damage.

**Testing:** A procedure used to physically determine the operational status of the fire alarm system. These tests adhere to the testing intervals specified in the appropriate chapter of NFPA 72, as referenced in the NYS Uniform Fire Code (19 NYCRR 1225), and 14 NYCRR Part 635.

Quarterly Cleaning and Inspection: Each residential and Day program site shall be inspected on a quarterly basis. The contractor shall physically inspect, clean and test the entire system and all its components at each of the listed sites. Quarterly inspection reports are to be provided and left at the site upon the day of inspection, and copies are to be forwarded to the appropriate physical plant management department.

- C. Notification Requirement

1. Prior to any work commencing on fire alarm systems that are part of this contract, the contractor shall contact the owner to arrange a site visit to the property. Site visits will not be allowed without prior notification to the owner.

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 to prevent unnecessary response. The owner, fire department districts and central offices, code enforcement official and central supervisory station shall be notified by the contractor when the system is taken out of operation and when it is returned to operation.

- D. Contractor Qualification

- E. Inspections, testing and maintenance shall only be carried out by an individual, firm, company, partnership or corporation in possession of a valid New York State Fire Alarm Licenses

1. Inspections, testing and maintenance shall be carried out by qualified personnel and implemented in accordance with procedures established in NFPA 72, in this document and in accordance with the manufacturer's instructions.

2. All work shall be performed by personnel who have developed competence through training and experience. Qualified personnel shall be limited to individuals with one or more of the following qualifications as identified in NFPA 72:

- Factory trained and certified
- National Institute for Certification in Engineering Technologies fire alarm certified
- International Municipal Signal Association fire alarm certified
- Trained and qualified personnel employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems.

Both the company and the personnel performing the service must have at least five years of experience on similar size and type equipment.

3. Provide proof of qualifications at the request of the owner prior to bid award that establish contractor qualifications to perform the work. References of previous projects that are of similar scope are to be provided.
4. Proof of liability insurance and workmen's compensation insurance are to be provided at the time of bid as part of the bid submittal.

## II. FIRE ALARM SYSTEM INSPECTION GENERAL REQUIREMENTS

### A. System Documentation

Prior to system maintenance or testing, the system certificate and available information regarding the system and system alterations, including specifications, wiring diagrams and floor plans shall be provided by the owner to the service personnel. The contractor shall prepare documentation for inventory of all fire alarm system components to be inspected, tested and maintained in the system.

- B. Visual Examinations – Perform the following visual inspections **at the beginning of the contract period** to ensure proper operation of all system components.

The contractor shall visually inspect fire alarm system components for proper operation, position and condition as appropriate and as recommended by NFPA 72. The components shall include but not be limited to the following:

- Control Equipment: fire alarm systems monitored for alarm, supervisory, and trouble signals – Fuses, Interfaced equipment, lamps and LEDs, Primary power supply
- Batteries (UPS), Control Unit Trouble Signals, Fiber Optic Connections
- Emergency Voice/Alarm Communications Equipment
- Sprinkler System alarm devices

- Initiating Devices – Air Sampling, Duct Detectors, Electromechanical release devices (magnetic hold open devices), Fire extinguishing systems, Fire alarm boxes, Heat detectors, Radiant energy fire detectors, Smoke detectors, Supervisory signal devices Water flow devices.
- Safety Office Station Monitoring equipment
- Alarm Notification Appliances – Supervised
- Supervising Station Fire Alarm System Transmitters and Receivers

After the initial inspection of all fire alarm system components, the contractor shall in writing bring to the attention of the owner any problems revealed from the inspection. Necessary corrective action will be identified in the written report.

### III. FIRE ALARM SYSTEM TESTING GENERAL REQUIREMENTS

The following fire alarm system components shall be physically inspected and tested in accordance with NFPA approved test methods and manufacturer's recommendations. The contractor shall perform testing of fire alarm components in accordance with the following frequencies:

#### A. QUARTERLY (four times per year)

1. Initiating Devices – All fire alarm initiating devices and alarm system components shall be physically tested quarterly. Devices to be tested are: Smoke detectors, heat detectors, duct detectors, carbon monoxide detectors, and fire alarm manual pull boxes, supervisory signal devices magnetic hold open devices, bed shakers, horns and strobes, etc...
2. Central Station operation shall be checked for confirmation that fire alarm annunciation is being properly relayed to the supervising Central Station. It shall also be confirmed that the Central Station is immediately annunciating the fire alarm signal to the local fire department.
3. Emergency Voice/Alarm Communications Equipment – manual test of power supply, Check of sound levels (sound measurements), verify audible information (pre-recorded messages)

#### B. SEMI ANNUAL (Two times per year)

1. Batteries:
  - Lead Acid - Perform discharge test (30 minutes), load voltage test, check specific gravity
  - Nickel Cadmium – Load voltage test
  - Sealed lead acid – Load voltage test
2. Sprinkler Alarming Devices –Test alarm connection to the fire alarm system.
  - Water flow Alarm devices
  - Valve tamper Alarm switches
  - Fire extinguishing suppression systems or switches

C. ANNUAL (Once per year)

1. Control Equipment Building Systems – Functions, fuses, interfaced equipment, lamps and LED's, primary power supply, transponders
2. Batteries:  
Lead Acid - Charger test  
Nickel Cadmium – Discharge test, load voltage test  
Sealed Lead Acid – Discharge test, load voltage test
3. Fiber Optic Wiring – fiber optic transmission line shall be tested in accordance with the manufacturer's instructions.
4. Control Unit trouble signals – Audible and visual, Disconnect switches, Ground fault monitoring circuit, Transmission of signals to Central Station
5. Heating, Ventilating, and Air Conditioning (HVAC) System - Test fan shutdown operation, test electromechanical operation of smoke dampers, test operation of smoke control system.
6. Remote annunciators – The correct operation and identification of annunciators shall be verified. If provided, the correct operation of annunciators under a fault condition shall be verified.
7. Safety Office Equipment or House Manager Office Equipment (Main Panel) - Tests shall be performed on all system functions and features in accordance with the equipment manufacturer's instructions for correct operation. Initiating devices shall be actuated and receipt of the correct initiating transmitting device signal shall be verified.
8. Supervising Station Equipment Receivers (Central Station) - Tests shall be performed on all system functions and features in accordance with the equipment manufacturer's instructions or correct operation. Initiating devices shall be actuated and receipt of the correct initiating device signal at the supervising station within 90 seconds shall be verified. Transmission of fire alarm to the local fire department by the Central Station shall be verified.

Sensitivity testing should be performed on initiating devices every two years and in accordance with NFPA 72.

D. ROUTINE MINOR MAINTENANCE AND REPAIRS

1. The contractor shall establish a list and quantity of alarm devices at each location and update list as changes in hardware occurs. A complete inventory of all fire alarm devices and components shall be included in each testing report submitted by the contractor.
2. Replacement parts and adjustments when necessary shall be made during inspection visits. Contractor will secure approval for any work that is expected to cost up to \$500

from the owner prior to performing corrective action. Provide a breakdown of costs listing labor and parts separately.

3. Repairs that are expected to exceed \$500 must first receive written approval of the owner prior to work commencing.

#### E. IMPAIRMENTS

All system defects and malfunctions shall be corrected as part of the testing and maintenance of the system under this contract. If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, and the defect or malfunction is such that it will result in the inability of the fire alarm system to operate adequately in the event of a fire, the system owner shall be informed of the impairment immediately, followed in writing within 24 hours so that corrective action can be taken. The owner will provide contacts to the contractor for immediate response when impairments compromise system operation.

#### IV. REPORTING REQUIREMENTS

- A. Records shall be completed for all inspections, tests and procedures including results from fire alarm testing performed. Records shall indicate the procedures performed the organization that performed the work, the results and the date completed. The report record must be signed and dated by the person(s) performing the work.

**It is required as part of this contract that the contractor complete and submit to the owner the National Fire Protection Association forms "Inspection and Testing Form", as appropriate for the inspection and testing work being performed. The contractor may substitute a similar maintenance, inspection and testing form if acceptable to the owner and must include at a minimum all of the information required by NFPA 72.**

- B. Meet with the Owner's Representative after each testing and inspection visit is completed to discuss the findings. The person identified as the "Owner's Representative" shall be identified by the facility Physical plant management representative. Each operational and maintenance issue found during the service shall be identified if the report forms and necessary remedial action, if any, explained to the owner by the contractor.
- C. The contractor shall complete all inspection and testing report forms in a complete and legible manner. A copy of each report shall be delivered to the owner's representative. A second copy or the report shall be physically left at the building inspected. The contractor shall keep a copy of the inspection for the permanent record.

APPENDIX A - LIST OF BUILDINGS

(Facility to attach list of buildings here)