



The role of the fire sprinkler inspection company

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The inspection of a fire sprinkler system is a tremendous responsibility. Water based fire protection systems protect both life and property. In cases where fire protection systems failed to control or extinguish a fire, closed water valves and poor maintenance practices was the most frequent reason for system failure.

In the wake of several recent incidents involving the loss of life and property such as the Deutsche Bank fire, it is imperative that building owners defend themselves against potential lawsuits by demonstrating high standards of compliancy with fire protection system testing and maintenance programs.

There is such a diverse range of inspection and maintenance activities requiring so many levels of expertise that the National Fire Protection Agency (NFPA) has dedicated an entire reference standard solely on this subject, NFPA 25 - "The standard for the inspection, testing, and maintenance of water-based fire protection systems."

The New York City Building Code as well the FDNY Fire Prevention Code refer to NFPA 25 (with certain modifications) as the standard for which fire protection systems shall be inspected, tested, serviced and otherwise maintained.

Inspection Criteria

Make sure the inspection/test agreement describes the activities provided by the sprinkler inspection company. NFPA 25 requires that certain activities be performed at certain intervals. Rarely does an inspection and test agreement assign all of these activities to the sprinkler inspection company. The most common agreement for a wet sprinkler system is to have the inspection contractor come to the building to provide a visual inspection of the gauges, control valves, sprinklers and fire department connections and to provide a report of the visit for review by the AHJ. To comply fully, all of the requirements of NFPA 25 (which is the responsibility of the owner) must be met.

Main Drain Test

Upon order of the fire commissioner, but at least once every year, a flow test shall be conducted of the sprinkler system to determine whether there has been a change in the condition of the water supply piping and control valves. The static and flowing water pressure should be recorded and compared with the previous results to determine if an obstruction exists. Certified test results shall be kept for not less than five years.

Control Valves

Aside from the monthly visual inspection of all control valves on the system, each control valve should be operated annually through its full range and returned to its normal position. Every five years all gauges either need to be recalibrated or replaced.

Waterflow Alarms

Semiannually test the waterflow alarm for each sprinkler system using the inspectors test connection

simulating the activation of the most remote sprinkler. The automatic fire alarm system should activate within 90 seconds after the inspectors test connection has been fully opened. Verify that all alarms were received by alarm monitoring company.

Dry Pipe Valves

Every quarter verify the operation of the quick-opening device control valve with the system control valve closed. Conduct a dry pipe valve trip test annually with the control valve partially open. Once every three years perform a full flow test through the inspectors test providing records of all system air and water pressure.

Hydrostatic Pressure Test

Upon order of the fire commissioner, but at least once every five years, a hydrostatic pressure test shall be conducted of any fire department connections for the sprinkler and/or standpipe system. In addition, a flow and pressure test shall be conducted of the standpipe system to demonstrate its suitability for fire department use. Certified test results shall be kept for not less than five years.

Sprinklers

When sprinklers reach the age of 50, a sample set of sprinklers must be submitted to a nationally recognized laboratory to insure that they are in good working condition. A representative sample set of sprinklers should consist of a minimum of four or 1% of the total number of sprinklers. If one sprinkler fails to satisfy the test requirements than all of the sprinklers must be replaced.

Due to the mechanical and corrosive nature of water based fire protection systems, it is imperative that regular scheduled maintenance programs are continuously adhered to. Compliance with all NYC local laws is the direct responsibility of the building owner.

The inspection and maintenance of fire sprinkler systems requires a skill set and expertise that comes only from knowledgeable and trained technicians. Look for credentials including NFPA training and NICET certification. Properly functioning systems can and will save lives.

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