Hot Spots

A Fire Protection Newsletter

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GBA George Butler Associates, Inc.

Routine Maintenance of Fire Protection Equipment

Upon initial installation, fire protection systems are required to be tested in order to verify all devices and equipment are functioning properly and working per the design intent. Items tested may include occupant notification, fire/smoke damper operation, HVAC unit shutdown, suppression release, elevator recall and shunt trip, and emergency voice communication. But what happens after installation, commissioning and startup?

As an owner, you hope that the fire protection systems will never have to be used. Unlike heating and cooling systems, fire protection systems are not part of a daily routine. When the heating or cooling systems are not properly working, you will know about it. If the fire protection systems are not in good working order, will you find out when it's too late? NFPA (Pamphlets 14, 25, and 72) has minimum guidelines that should be followed regarding inspection, testing, and maintenance of fire protection systems. There are two main types of maintenance, visual inspection and physical testing. Most devices are required to be visually inspected semiannually to verify that no changes have occurred that will affect the performance of the systems. The majority of devices are required to be tested annually to verify proper operation of the systems, but some are required semiannually. The ultimate goal of maintenance and testing is to maintain critical life safety equipment in proper working order.

Who is responsible for the inspection and maintenance of the fire protection systems? This responsibility usually lies in the hands of the owner, or his designated representative. Inspection, maintenance, and testing can be done by someone other than the owner, if conducted under a written contract, as indicated by NFPA 72. If the owner designates a contractor to test the fire protection systems, the owner or his representative should be on site to witness the testing and receive the proper documentation that the systems were tested according to NFPA. In addition, the contractor may be required to be licensed and certified by the local jurisdiction to conduct testing and maintenance of fire protection systems. Finally, in order to avoid warranty problems, contractors should be trained and authorized by your fire protection equipment manufacturer to conduct routine maintenance and testing.

Fire protection systems are intended to protect life and property. If these systems are not working at the time of fire incident, there is no maintenance call, no second chance. For instance, from NFPA, "Sprinklers are highly reliable. When present in the fire area, they operate in all but 7% of fires large enough to activate the system. Human error was a factor in almost all of the failures. The system was shut-off in almost two-thirds of the failures." Make sure that your fire protection systems are being inspected, tested, and maintained by qualified personnel, according to NFPA guidelines and regulations.

Spring Cleaning Time?

When is the last time you used that bucket of old, flat, tennis balls, or wore those plaid golfing pants? Maybe it is time to clean out that garage; even if it is no longer spring. You probably have things that need to be thrown out or changed in your work space as well.

Telecommunications facilities and data centers tend to accumulate large quantities of unused cables, usually abandoned. The insulation on these cables can present a significant combustible loading, and therefore, a fire hazard.

NFPA 76 (Telecommunications Facilities), Section 9.9 requires a Cable Management Program to control telecommunications and power cables. In fact, NFPA 76 specifically requires that abandoned cables not be allowed to accumulate (Section 9.9.3). Further, cables not identified for future use shall be removed (Section 9.9.3.1).

NFPA 75 (Data Centers) allows abandoned power cables, communications cables, and connecting cables under a raised floor ONLY if they are contained in metal raceways.

An effective cable management program can drastically reduce the amount of combustible loading in your facility, which could drastically reduce the damage done by a possible fire. As an added bonus, some recycle centers will accept cabling in order to recycle the insulating jacket.

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