SPECIAL EXTINGUISHING SYSTEMS PERIODIC INSPECTION AND TEST

INTRODUCTION

Many special extinguishing systems are never called upon to extinguish a fire during their lifetimes. However, when they are needed they must be ready to perform with utmost reliability. To ensure this periodic inspection and tests not otherwise covered in the NFPA Standards dealing with the design and acceptance testing of extinguishing systems.

POSITION

Inspect and test special extinguishing systems on weekly, monthly, and semiannual schedules.

Weekly Inspections

Check the following items weekly to ensure the system is in the normal operating mode:

- Control panel not in “alarm” or “trouble” status or in the “off" or "bypass" position.
- Cylinder gauges indicate proper pressure.
- Battery charging properly. (Check battery hydrometer readings monthly, if applicable)
- Pins on manual releases are in place and sealed.
- Electrical conduit and wiring, pneumatic tubing, if any, or other components not physically damaged or obstructed.
- Changes in the size or severity of the hazard have not occurred.
- Ventilation system it is operational and has not been altered.
- Current system service tag is attached.
- Manual actuators and pull stations are unobstructed.

Monthly Inspections

Check the following items monthly to ensure the system is in the normal operating mode:

- Protective caps, if used, are not damaged and in-place.

Semiannual Tests

Unless a purchaser of the special extinguishing system has personnel trained by the equipment manufacturer to test, maintain and service the system, make arrangements with a competent contractor (preferably the installer) for this work. This contract should provide for semiannual testing, maintenance and emergency servicing of the equipment.

In addition to confirming the amount of agent, test all devices and interlocks. These include:

- Actuation devices.
- Local alarms (audible and visual).
- Alarms to fire department, central station, remote station, proprietary signaling service or local annunciation.
- Damper closure.
- Air conditioning power shutdown.
- Computer shutdown (without adversely affecting operations).
- Agent-actuated pressure switches.
- Detectors sensitivity and operation, including cross-zoning, or similar “AND-gate” function.
- Electric manual releases.
- Mechanical emergency manual releases.
- Automatic door closure.
- Emergency smoke and heat removal system.
- Aborts (if provided).
- Time delays.
- Supervision of all circuits.
- Pneumatic tubing (by manometer if not supervised).
- Normal and emergency manual releases.
- High pressure carbon dioxide cylinders and clean agent cylinders should be weighed. If more than a 5% loss of weight or pressure is noted, the cylinder should be refilled or replaced.
- The perimeter of the enclosure should be inspected for unsealed penetrations. If numerous penetrations are discovered, consideration should be given to conducting a discharge test or an enclosure integrity test following the sealing of the penetrations.

Confirm restoration of all equipment to normal at completion of testing. Maintain a complete written record of all testing, maintenance and servicing.