

# Visual Inspections: A Critical Fire Safety Component



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The first few times plant operators and their maintenance personnel perform visual inspections of their buildings, problem areas are likely to stand out and are usually noticed immediately. After awhile, continuous monthly walkthroughs become very tedious, and there are always incidents which crop up to divert the attention of the in-house personnel conducting the audits. The same maintenance personnel may also be responsible for performing the monthly inspections of the fire safety equipment as required by the Ontario Fire Code. From activating pull stations and sprinkler risers to signing off the fire extinguisher tags, inspections can be very stressful given the many other responsibilities of the staff. An increasing number of these company business owners are investigating their options regarding the subcontracting of fire equipment monthly audits to specialized firms. Liability is also a real concern when in-house staff perform these tests. Therefore, it is critical to ensure that all in-house maintenance personnel who conduct monthly testing of fire equipment have been fully trained. They must have a clear understanding of the Ontario Fire Code with respect to the standard testing procedures. Furthermore, detailed recording of test and check results is vital for confirmation of the current status of their fire equipment.

## **Ceiling Voids: A Hidden Danger Awaits**

The parts of a building not regularly seen by the maintenance personnel are of great concern to fire officials. These areas include the office ceiling voids, lift shafts, ductwork and air handling systems. These can all become serious fire safety hazards if not installed by a competent, professional firm or if not maintained correctly. A problem area that has been brought into focus lately is the potential for fire spread via materials in ceiling voids. The use of voids for cabling is growing, and the emergence of new fire-path and fire-load problems are exacerbated by the increasing frequency of cabling work. Computer systems and telecommunication networks are being upgraded and replaced more often as technology changes. The need for fire-testing of cables has become even greater since retrofits in modern offices can result in a heavy concentration of combustibles, such as cabling in concealed spaces. The installation of combustible materials is often uncontrolled and there may be several generations of obsolete cable lying in a ceiling void. This creates an unknown fire load throughout the building. Fire safety standards that apply to electrical cabling are well established, but it is not so commonly known that there are similar standards specifically for data, communication and fibre-optic cables. The fire risks where communication and data cables run through ceiling voids may well be a major threat, especially as these fires can spread quickly and unnoticed. For this reason, business operators and their maintenance personnel must be made aware by the cabling contractors who work for them, of

the types of cables being installed and the methods used to secure them. In addition, they must be notified of any penetrations in fire separation junctions. All the more reason to inspect any fire separations that have been compromised due to cables being brought through that they be properly sealed with fire retardant materials. Some of this product comes in an "egg crate" design and can be fitted into the opening no matter what size. Once fire takes place the material will expand upon exposure to heat and will fill into itself thereby sealing the opening.

## **Fire System Shutdowns: Fire Watch Requirements**

Another area of concern to both the fire officials and the insurance underwriters are the risks business operators take when their fire systems are shutdown without implementing a fire watch. A fire watch is a procedure by which a fire guard physically conducts a walk through of the entire building when the fire alarm and/or sprinkler system is not operational. During a fire watch, an elected employee or contracted security guard actively looks for evidence of smoke or fire, and if evidence of these are found, they immediately contact the fire department regarding the emergency within the building.

The Ontario Fire Code section 2.8.2 requires that buildings equipped with fire alarm and sprinkler systems be fully operational at all times. In the event any of these systems are out of service for any reason whatsoever, a fire watch through the use of fire guard(s) or elected employee is implemented immediately. The fire watch is only intended as a short-term alternative that permits continued occupancy of the building. The Fire Marshal requires that the business operator or management team take immediate corrective measures to restore the function of all systems.

## **Temporary Shut Down of Fire Alarm Systems**

Notify all supervisory staff that the fire alarm or sprinkler system is temporarily shut down. A fire watch contracted security guard or elected employee shall be appointed to conduct a sequential tour of the building in areas normally served by fire detection devices (i.e. office or warehouse areas protected by sprinklers, heat detectors, smoke detectors or some other form of fire detection device). The fire watch individual should record their patrols and also have some means of communication that can be used to notify the fire department in the event of a fire. If a fire emergency exists, efforts must be taken to notify all persons in the building.

## **Temporary Shut Down of Special Fire Extinguishing Systems**

When a special fire extinguishing system is shut down, (i.e. gaseous agents, wet and dry chemicals) all occupants and/or employees working in the hazard area(s) as well as all superviso-