Ontario Fire Code increases the level of safety by mandating multiple safeguards

Balanced protection includes mix of action and equipment

By Jim Widmer, president of the Fire Equipment Manufacturer's Association.

For generations, commercial building owners and managers have put their confidence in standpipe rack hose stations — a critical and proven piece of life- and property-saving equipment — to safeguard buildings and their occupants. However, over recent years, significant changes to provincial building codes have been adopted, requiring a redundant method of fire protection within high-rise buildings. These code changes later led to unintended decreases in tested and proven forms of fire protection, allowing what some see as a significant decrease in fire protection design.

Beginning in British Columbia and eventually spreading to the East Coast, fire code in Canadian provinces have harmonized with the National Building Code of Canada. The National Building Code — which serves as the model building code, and is not considered regulation until it is adopted by a jurisdiction that regulates construction — mandates the inclusion of automated sprinkler systems in high-rise buildings, and the inclusion of standpipe systems in buildings over three stories unless the building is sprinkled throughout. Therefore, for economic reasons, building owners in jurisdictions that have adopted the National Building Code may choose not to install standpipe rack hose stations in buildings that are 100 per cent sprinkled, and instead rely solely on automated sprinklers.

This fire protection philosophy raises concerns for the Fire Equipment Manufacturers' Association, a more than 60-year-old international trade organization that advocates a "balanced" fire protection design, i.e. one that does not rely on any single safeguard. Rather, the Fire Equipment Manufacturers' Association suggests a combination of standpipe hose stations, automated suppression systems, and portable fire extinguishers.

Ontario is the only province that has not fully harmonized with the National Building Code and, as a significant step towards a balanced fire protection design providing greater fire safety, continues to mandate standpipe rack hose in addition to automated sprinklers. The Fire Equipment Manufacturers' Association applauds the steps that Ontario has taken to further reinforce fire safety, but cautions of an equipment tradeoff and reduction in overall fire protection.

Benefits of Standpipe Rack Hose

Ninety-three per cent of deaths and 95 per cent of property damage occur once the fire has progressed beyond the early stage; the first critical minutes can be the difference between a single flame and loss of property and lives.

Andrew Wong, certified fire protection specialist with the Vaughan Fire and Rescue Service, agrees that standpipe hose stations are an essential component to fire safety within buildings, as the equipment "serves as a means of first-aid fire fighting by building occupants, and also facilitates fire suppression operations by firefighters."

Contributing to this equipment's necessity are these key attributes:

Quick suppression. Standpipe fire hose stations do not depend on heat, smoke or flame to spread before water can be applied to the fire. While calling the fire department is the first step after the onset of a fire, statistics show that these stations provide on-site protection at the fire's earliest stages, offering quick and effective response.

Simple, one-person operation. The simplicity of the equipment's operation provides the opportunity for trained staff to control or extinguish a fire while it is still small — before the fire develops sufficiently to activate the sprinkler system. Operation is easy — open the valve completely and pull the hose entirely off the rack. The water will flow when the hose is free and the nozzle is open. What's more, this manually-activated equipment provides total reliability in the event of failure of automatic systems.

Minimal water damage. Fire hoses installed within standpipe stations can actually minimize water damage, as water is released directly at the fire base versus blanket spray from automatic sprinkler stations.

Occupant safety and rescue. In some cases, fire spreads too quickly, before occupants have time to exit. Standpipe fire hose stations can clear a path of safety, otherwise blocked by flames, and provide temporary protection for occupants attempting to escape the building.

Implementing a Balanced Fire Protection Plan

To be clear, automated sprinklers do not take the place of standpipe hose stations or suppression systems. Rather, a "balanced" fire protection design includes a mix of appropriate actions and fire equipment, linked together, to provide a chain of survival.

Here are the steps one should initiate in the event of a fire:

1. Notify the fire department.
2. Begin evacuation, making sure everyone is safe.
3. If it is safe to do so, use an occupant fire hose as your first defense against small fires.
4. Automated fire/smoke alarm sounds.
5. Automated sprinkler/suppression system activates.
6. Fire department responds.

Training and Education Materials

Wong is a strong advocate for standpipe occupant hose training, having conducted such courses first hand. "Training to properly use standpipe hose stations is simple, and may help to assist building occupants to create a survivable environment to safely evacuate the building before the fire department responds."

Commercial building owners and managers must now consider the most effective options when dealing with the issue of safeguarding their assets; protecting property and life safety.

For more information on standpipe fire hose stations, including interactive training and maintenance, please visit www.rackhose-training.com. For additional fire-related education materials, visit the Fire Equipment Manufacturers' Association website at www.femalifesafety.org. ■

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