

The need to provide Fire Alarm Awareness and Training to Building Owners & Managers

Issues of training and awareness are paramount in the fire alarm industry, but they are seldom given the attention required until tragedy strikes. It is only after fire strikes that people truly realize its ramifications, and examine what legislation might be enacted to ensure essential, possibly life saving, changes take place.

Owners and Managers generally rely on industry experts to address their fire protection needs. However, training and awareness are often not part of their overall plans. Usually, engineers/ consultants design the systems and electricians/contractors install, verify and maintain those systems. Once systems are put in place, it is often the engineers/consultants who sign off and prepare a fire safety plan that is subject to review by, and approval of, the local AHJ (Authority Having Jurisdiction). Building Owners and Managers use industry professionals for all of their fire protection needs in order to meet code requirements and to ensure that systems work properly when called upon. As a Consulting Engineer, I work closely with Owners and Managers to provide them with an awareness of what is required by the codes and standards that provide the guidelines for what and how fire equipment must be installed. More importantly, it is imperative that Owners and Managers understand the reasons behind what the codes and standards demand. It is also very important to understand that the codes and standards specify the minimum requirements for a building, and these minimums are not necessarily the best applications in certain circumstances. Good engineering practice and common sense are the keys to the safe and proper design of fire protection systems in a building. The CFAA has always been in the business of education within the industry. It provides courses, seminars, and training to owners, managers, AHJs, technicians etc. in order to ensure proper life safety procedures as well as property protection throughout the industry.

If building Owners and Managers are not provided with proper guidance and training, it is impossible for their building staff and occupants to know what to do if faced with an actual fire emergency. Fire safety plans outlining a building's fire protection systems, its human resources, the specific responsibilities of staff and occupants (especially during a fire), the alternative measures to be followed when fire systems are off-line, and the systems testing and maintenance, are all key requirements for all parties to be aware of what needs to be done in any circumstance. Fire safety plans must be provided in accordance with the Ontario Fire Code (OFC) regulations, and they must be reviewed at least once a year, or whenever changes have been made to a facility or its fire protection systems. It is the responsibility of building owners to ensure that this is done.

The four primary components of providing proper fire and life safety are containment, exiting, detection, and suppression. These four items can be further separated into two passive or active systems. Containment and

exiting are passive systems and deal with the fire separations, including things such as fire dampers, windows, doors, door holders, electromagnetic locks, door closers and latches. All of these things are in place to keep smoke and fire contained within an area so that fire is separated from the remainder of the building. Fire separations must be continuous. This allows occupants enough time to safely evacuate and to get the fire department on-site before the smoke and/or fire spreads to exits, stairwells, corridors or any means of egress. Fire separations must be maintained, ensuring no holes or penetrations are present. The doors and associated hardware, windows and dampers must also be properly maintained. This is so that fire and smoke are limited to a specific area and the exits and means of egress are kept free of obstructions so occupants can evacuate safely.

Active systems detect a fire condition, alert the building occupants of that fire condition, and get the fire department to the site promptly, usually via off-site monitoring of the system. Suppression systems are also used to extinguish a fire, often before the fire department has even arrived. This effectively deals with the situation by limiting the amount of smoke or fire damage to a facility.

When a building Owner and Manager properly maintains their safety systems, and follows their fire safety plan, fatal tragedies like the recent fire in the Quebec retirement home or the fire at the 2 Forest Laneway apartment a number of years ago can be avoided. I cannot stress enough the importance of awareness and training with building owners, managers and their occupants as this can prevent injuries and save lives!

Fire drills must be performed regularly in accordance with the OFC. The type of occupancy in a building dictates the frequency of fire drills. Other than scheduled drills, there is often no other training provided or performed in a building, so common sense must also kick in. Fire and life safety, and the codes and standards in place, are all governed by common sense. For example, if a corridor or exit is blocked or obstructed with boxes, shoes, or clutter, how can people exit the building quickly and safely if a fire occurs? If a person cannot see an exit because something is blocking the exit sign, or blocking the emergency light illuminating the means of egress, how will he or she know where to find a safe exit? If you cannot see, or physically get to a pull station, how do you activate the fire alarm system to alert occupants and the fire department? If a maglock on a door does not release immediately upon activation as indicated by the signage, where do you go and what can you do? If you use a frayed extension cord or overload an electrical outlet are you not creating a fire hazard? Discarding oily rags or flammable liquids near an open flame, careless smoking or leaving unattended your cooking/frying are all accidents waiting to happen. And when engaging in such potentially hazardous activities, don't make the mistake of believing, *nothing will happen*, as that is when something surely will.

Owners, managers and occupants alike are generally happy to accommodate the codes, standards, and regulations as long as they understand that they provide the property protection required to ensure buildings remain safe for its occupants. In this way we can ensure that when a real fire does occur it is dealt with quickly

and efficiently by all parties affected. Fire protection may not be thought of on a daily basis, but like an insurance policy it must be there, working effectively and consistently, if ever it is needed.

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