**Fire protection and detection.**

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*The following is a summary of the presentation done by Grinnell Fire Protection especially for the Building Operator Association (Calgary)*

Selecting the optimal technical solution to suit application.

* Analogue addressable fire alarm systems are programmed to implement optimal fire detection solutions. Analogue addressable systems offer improved reliability and diagnostics in the event of a fire and during routine maintenance. Reduced unwanted alarms and more effective emergency response has resulted in the specification of analogue addressable systems for most significant risk areas included hotels, hospitals, office blocks, sports complexes and even cruise liners.
* Conventional detection systems are used for less complex risks and provide reliable and effective fire detection for schools, warehouses, motels and other low risk areas.
* Detectors may either respond to smoke or heat and smoke detectors may either utilize ionization or photoelectric technologies to detect smoke. Detectors selection will depend on required response time and the nature of the combustible materials present in the risk area.
* Infra-red and pressure detectors are effective in detecting fires in high hazard areas where response times are critical, including aircraft hangers, machine spaces, gas turbines and paint spray booths.

Once the system design has been chosen and the system has been installed, the next step is the servicing.

**Fire Protection - your legal responsibility.**

The NFPA - 25 Fire Code makes inspection and testing of most fire inspection systems mandatory. Failure to adequately inspect and maintain fire protection systems may result in fines, but more importantly it can save lives.

**Inspection and Service.**

Fire detection systems need to be regularly inspected and maintained, and detectors need to be cleaned and periodically replaced.We strongly recommend a comprehensive inspection and maintaince service for all fire detection systems.

**Inspection - the key to effective fire protection.**

The following are some of the questions which our inspectors ask when they inspect a location. A "NO" answer to any one of these, if not attended to, may result in the catastrophic failure of a system, re-emphasising the critical role of regular inspection procedures as part of your overall risk management program.

* Do sprinkler systems provide full coverage?
* Has the risk changed significantly?
* Are all control valves sealed or locked in the open position?
* Are Fire Department connections visible and accessible?
* Do alarm valves, water flow indicators, and local alarms test satisfactory?
* Are dry system air pressure and priming water levels normal?
* Do dry valves appear to be protected from freezing?
* Does the detection system provide full coverage?
* Does the panel indicate normal conditions?
* Do batteries indicate they are properly charged?
* Do detectors require cleaning or calibration?
* Did testing duct detectors shutdown air handling units?
* Are all gas bottles fully pressurized?
* Are all valves locked in open position?
* Are fire extinguishers in position?
* Are fire extinguishers physically complete?
* Are fire extinguishers fully pressurized?
* Do fire extuiguishers require pressure testing?
* Does extinguisher powder need to be changed?

**Local Authority.**

The local authority having jurisdiction (fire prevention) has completed a major shuffle in their territories. The two inspectors for the downtown core have just completed courses in fire prevention inspections and have been given the downtown area to try and clean it up.  
The next big hit from the city and fire prevention will more than likely include a complete fire upgrade by-law. Many major cities in Canada have already completed upgrades in fire protection that resulted in an overall cost to building owners of more than $40,000,000.00 per major city.

The overall expense of fire protection, whether it is the initial installation or the regular service, ai always a very small part of an overall budget. However, it is one of the most important pieces of equipment you could possible have when it come to saving lives and property.

*We at Grinnell Fire Protection strive to maintain the highest level of service and quality products and we thank you for allowing us to be part of your monthly meeting.*