

Operating Guideline # 807

Sprinklered Buildings

December 9, 2019



PURPOSE:

The purpose of this Operating Guideline (OG) is to describe the actions to be undertaken by fire department staff when responding to an incident in a building that is protected by an automatic fire suppression (sprinkler) system.

GUIDELINE:

1. When responding to any building, firefighters should always consider the possibility of the building being protected by a fire protection system such as sprinklers either in part, or in the whole. In Muskoka Lakes, there are some smaller buildings (including single family dwellings) that are at least partially protected by such systems as well, so be alert to their possible presence. Water gongs or electric bells may provide an indication of a functioning system, as may a discharge of water from a drain valve located near the water gong. Signage *should* be present as well.

2. As a general rule of thumb, where a sprinkler system has been initiated due to a fire, one of the highest priorities for first arriving crews will be to “support” that sprinkler system by supplementing the water supply. A hydrant *not* being utilized for direct firefighting operations should be selected by a secondary pumper, and the sprinkler Siamese (fire department connection) should be supplied via two 65mm hose lines at a pressure of 1000kPa (150 psi).

NOTE: Where the fire department connection is a single 65mm or 38mm inlet, the appropriately sized hose line should be used to supply the system.

NOTE: All firefighters should be aware that the Ontario Building Code allows for a limited number of sprinkler heads to be fed from a building standpipe system in some occupancy types (i.e. – low rise apartments may have garbage chutes and service rooms protected by sprinklers that receive their water supply from the standpipes systems). In such cases, support of the Standpipe system Siamese/Fire Department Connection is advised.

NOTE: the interior of all building Siamese connections should be visually inspected for debris prior to use. DO NOT remove debris by hand (re: needlestick, cut hazards) but rather flush with water where practical.

3. The Incident Commander should assess whether the operation of the sprinkler system is being effective at controlling the fire, or has extinguished the fire.

4. The Incident Commander should also assign a team of radio-equipped firefighters to locate the main sprinkler riser to determine if the main control valve is open. This crew should stay at the main sprinkler riser throughout operations at the incident unless it is unsafe for them to do so.

5. The main control valve should NOT be closed prematurely, and may only be closed once the Incident Commander has verified that the fire is out and has authorized its closure. The Incident Commander may also authorize the closure of the main sprinkler valve where it is

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necessary to conduct fire suppression activities, the sprinkler system has been overwhelmed and is not being effective, or it is necessary for property conservation AND sufficient manual fire suppression capabilities are in place.

6. The Incident Commander and crews operating inside a structure should constantly evaluate and assess the risk posed by water being discharged inside the structure (the weight of the water, the effect of the water on stored materials etc.). Interior crews should also be alert to water “ponding” and accumulating on the floor, and the potential for reduced visibility due to steam production and the cooling of fire gases/products of combustion.

7. Where a sprinkler system has been subject to accidental activation due to physical damage (i.e. being struck by a lift truck, freezing pipes etc.), fire department personnel may assist property owner with system shut downs at their request. As far as possible and practical, fire department staff may also assist with property conservation efforts as circumstances permit.

8. Fire department personnel shall NOT attempt to restore a sprinkler system to operational status during a response – this is the sole responsibility of the property owner.

9. If the fire department renders a sprinkler system (or portion thereof) inoperable for any reason, the owner of the building MUST be notified by the Incident Commander, and fire watch provisions MUST be initiated and maintained until the system is fully restored.

10. The Fire Chief or designate should always be contacted after any sprinkler system has been engaged within the Township, this ensures that the Township of Muskoka Lakes will inspect the system post incident.

RESPONSIBILITY:

It is the responsibility of all Departmental staff to adhere to the provisions of this Operating Guideline.

REFERENCES:

- Fire Officer’s Handbook of Tactics, third Edition, John Norman, Penwell Publishing
- Engine Company, John Salka, Penwell Publishing
- Ontario Fire Code
- MLFD OG 701 – Incident Command
- MLFD OG 708 – Size- up Considerations
- MLFD OG 812 – Standpipe Systems