



**SNC-LAVALIN**

**ProFac**

*Fire Safety and Evacuation Plan*

*Name of Building*

*Address of Building*

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## SECTION IV

# MAINTENANCE PROCEDURES FOR FIRE PROTECTION SYSTEMS



**SECTION IV**  
**MAINTENANCE PROCEDURES FOR**  
**FIRE SAFETY EQUIPMENT**

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## **PREFACE**

The following list outlines the checks, inspections and tests required by the Ontario Fire Code (388/97). The information provided in this schedule is a guideline to the scope of work. The Ontario Fire Code should be consulted for exact details on the Codes listed in this section.

It is important to recognize that the requirements for equipment, testing and preventative maintenance may vary depending on the building classification and/or occupancy type. The Ontario Fire Code sets out specific requirements for checking, inspecting and testing of fire safety equipment in existing buildings. Whenever a defect or deficiency is discovered in any fire safety device, the property owner or his agent must take immediate corrective action.

The Facility Manager from PROFAC Facilities Management Services will carry out the provisions of the code on behalf of the owner, the Ontario Realty Corporation. Written records will be kept of all test and corrective measures for a period of two years after they are made, and the record shall be made available upon request to the Chief Fire Marshall.

For the purpose of carrying out these maintenance procedures, the following definitions should be considered applicable. These definitions can be found in the Ontario Fire Code.

- CHECK - Visual observation to ensure that the device or system is in place and is not obviously damaged or obstructed.
- INSPECT - Physical examination to determine that the device or system will apparently perform in accordance with its intended function.
- TEST - Operations of a device or system to ensure that it will perform in accordance with its intended operation or function.



**MAINTENANCE AND INSPECTION SCHEDULES**

<b>Fire Code</b>	<b>Requirement</b>	<b>Item</b>	<b>Responsibility</b>
<b>DAILY</b>			
2.7.3.1 2.7.3.2	CHECK	Exits lights to ensure that they have not been damaged and that they are illuminated.	
6.3.2.1	CHECK	Fire Alarm AC Power Lamp and Trouble Light.	
6.3.2.2	CHECK	Voice communications system, AC power lamp and signal.	
6.3.2.3	CHECK	The central alarm and control facility shall be checked daily for indication of trouble in the system.	
6.6.2.2	CHECK	Tank Heating Equipment	
6.6.2.3	CHECK	Fire Fighting Water Supply Tank Heating Equipment and Water Temperature of Fire Protection Water Tanks during freezing weather.	
6.6.2.4	CHECK	Tank Enclosures in buildings during freezing weather.	
6.6.3.2	CHECK	Fire Pump Room during freezing weather.	
<b>WEEKLY</b>			
2.6.1.3	CHECK	Hoods, filters and ducts in ventilation systems subject to the accumulation of combustible deposits.	
2.6.1.13	CHECK	Commercial cooking equipment exhaust and fire protection systems.	
2.7.3.1	CHECK	Exit Lights (Dual Bulbs)	
6.5.3.1	CHECK	Sprinkler system control valves are open and properly supervised.	
6.5.3.3	CHECK	Dry pipe sprinkler system air pressure is being maintained.	
6.6.1.2	INSPECT	Valves controlling fire protection water supplies.	
6.6.2.12	CHECK	Water Level and Air Pressure for Pressure Water Tank.	
6.6.2.13	INSPECT	Relief Valves on Air and Water Supply Lines of Pressure Tanks.	
6.6.3.1	CHECK	Water Level in Fire Pump Reservoirs	
6.6.3.3	INSPECT	And operate all fire pumps.	



<b>MONTHLY</b>			
2.2.3.4	INSPECT	All doors in fire separations.	
2.7.3.3.(1)	CHECK	Pilot lights on emergency lighting unit equipment.	
2.7.3.3.(2)	INSPECT	Emergency lighting unit equipment.	
2.7.3.3.(3)	TEST	All emergency lighting unit equipment for operation upon failure of primary power.	
2.8.3.2	TEST	FIRE DRILL – DAY CARE CENTRE	
5.17.2.6	TEST	Welding and Cutting Equipment	
6.2.7.2	INSPECT	All portable fire extinguishers.	
6.3.2.2	TEST	The building fire alarm system and check all components including standby power batteries.	
6.3.2.3	Test	Voice Communication to and From Floor Areas to the Central Alarm Control Facility.	
6.4.2.1	INSPECT	Hose cabinets to ensure hose position and that equipment is in place and operable.	
6.5.5.2	TEST	Sprinkler system alarm using alarm test connection.	
6.6.2.8	INSPECT	Water Level in Fire Protection Gravity Tanks.	
6.7.1.1	TEST	Emergency Generator Set Operated at 50% of Rated Load for 30 Minutes.	
<b>EVERY TWO MONTHS</b>			
6.5.5.7	TEST	Sprinkler transmitters and water flow devices for electrical supervision.	
<b>EVERY THREE MONTHS</b>			
7.2.1.1	TEST	Smoke Control Equipment for equipment shall be carried out in accordance with Section 7.3 NBC and by the designer of the system.	
7.3.1.2	INSPECT		
7.2.2.1.	TEST	Photo-electric elevator door opening devices and key generated switches.	
<b>EVERY SIX MONTHS</b>			
2.6.1.13.	TEST	Extinguishing equipment for commercial cooking equipment.	
6.5.5.7.(3)	TEST	Gate valve supervisory switches, building and tank water temperature devices and	



		other supervisory devices.	
6.7.1.1	TEST	And clean crankcase breathers, governors and linkages on emergency generators.	
7.2.3.1	INSPECT	Smoke Shafts	
<b>ANNUALLY</b>			
2.2.3.7	INSPECT	Fire dampers and fire-stop flaps.	
2.6.1.4.(1)	INSPECT	Chimneys, flues and flue pipes.	
2.6.1.8	INSPECT	Disconnect switches for mechanical air conditioning and ventilation systems.	
2.6.3.3	CLEAN	Incinerators Spark Arrestors	
2.7.3.3	TEST	Emergency Lighting Unit Equipment	
2.8.3.2	TEST	ANNUAL FIRE DRILL	
6.2.7.1	INSPECT	Maintenance and testing of all fire extinguishers.	
6.3.2.2	TEST	Fire alarm system by persons acceptable to the Authority having jurisdiction.	
6.4.1.3.(2)	INSPECT	For wear, rust or obstructions after removal of plugs or caps on standpipe and hose system Siamese connections.	
6.4.2.4	INSPECT	Standpipe hose valves to ensure tightness and to ensure no water leakage.	
6.4.2.5	INSPECT	Remove and re-rack standpipe hose and replace worn gaskets.	
6.5.3.2.	INSPECT	Exposed sprinkler system pipe hangers.	
6.5.3.5	INSPECT	Sprinkler heads.	
6.5.4.1	INSPECT	Dry pipe auxiliary drains.	
6.5.4.3	INSPECT	Dry pipe valve water priming level.	
6.5.4.4.(2)	INSPECT	For wear, rust or obstructions after removal of plugs or caps on sprinkler Siamese connections.	
6.5.5.3	TEST	Waterflow on wet sprinkler system using most hydraulically remove test connection.	
6.5.5.4	TEST	Conduct a dry pipe system trip test.	
6.5.5.5	TEST	Sprinkler system water supply pressure using main drain valve.	
6.6.2.1	INSPECT	Fire Protection Water Supply Tanks	
6.6.2.7	INSPECT	Cathodic Protection on Fire Protection Water Supply Tanks.	
6.6.2.9	INSPECT	All parts of Gravity Water Supply Tanks	
6.6.3.5	TEST	Fire pump at full rated capacity	
6.6.5.1	INSPECT	All fire hydrants.	
6.6.5.3	INSPECT	Hydrant Barrel	
6.6.5.7	TEST	All fire hydrant waterflow.	



6.7.1.1.	INSPECT	And Service Emergency Generator and Generator Set.	
<b>EVERY TWO YEARS</b>			
Fire Code	Required	Item	Responsibility
6.6.2.5	CHECK	For Corrosion on Fire Protection Water Supply Tank.	
6.6.2.6	INSPECT	Fire Protection Water Tanks connected to non-potable water supply for sediment.	
6.7.1.1.	INSPECT	And torque heads and valve adjustments for emergency generator engines.	
<b>EVERY THREE YEARS</b>			
2.2.3.7	INSPECT	Fire Dampers and Fire Stop Flaps.	
6.7.1.1.	INSPECT	And service injector nozzles and valve adjustments on diesel emergency power engines.	
<b>EVERY FIVE YEARS</b>			
2.2.3.7	INSPECT	Fire Dampers and Fire Stop Flaps.	
6.2.7.1.	TEST	Hydrostatic test of carbon dioxide and water type fire extinguishers.	
6.4.3.6.	TEST	Hydrostatic test of dry standpipe system.	
6.7.1.1.	TEST	Insulation of emergency power generator windings.	
7.2.3.1.(1)	INSPECT	Closures in vent openings into smoke shafts.	
<b>EVERY SIX YEARS</b>			
6.2.7.1.	TEST	Empty stored pressure type extinguishers requiring 12 year hydrostatic test and subject to maintenance.	
<b>EVERY TWELVE YEARS</b>			
6.2.7.1.	TEST	Hydrostatically, dry chemical (other than having stainless steel shell), dry powder, and vaporizing liquid type extinguishers.	
<b>EVERY FIFTEEN YEARS</b>			
6.5.4.2.	INSPECT	Dry pipe system for obstructions and flush where necessary.	



## **FIRE DRILL PROCEDURES**

### **Annually**

Once each year, PROFAC MANAGEMENT in conjunction with the Building Emergency Evacuation Coordinator, should conduct a fire drill. The purpose of a fire drill is to ensure that all members of the Emergency Evacuation Committee are totally familiar with emergency evacuation procedures, resulting in orderly evacuation with efficient use of exit facilities.

Use the following procedure when conducting the fire drill:

- ☞ Notify occupants of the date and time of the drill.
- ☞ Notify the alarm monitoring service (when applicable) and the fire department, on their non-emergency phone numbers, that you are planning to have a fire drill, and that you will call them back when the drill is complete.
- ☞ Discuss evacuation procedures with the Emergency Evacuation Committee prior to the fire drill.
- ☞ The general alarm will be activated and the emergency procedures set out in this plan will be implemented.
- ☞ Restore the manual fire alarm pull station, and then reset the fire alarm system.
- ☞ Notify the alarm monitoring company (when applicable) and the fire department that the fire drill is complete.
- ☞ Discuss drill with occupants in an attempt to identify problems.
- ☞ The Building Emergency Evacuation Co-ordinator will complete the Fire Drill Report and provide copy to the Facility Manager to be inserted in the Fire Log Book.





**FIRE DRILL REPORT**

**(Please Print)**

SUBMITTED BY: \_\_\_\_\_

BUILDING: \_\_\_\_\_ FLOOR: \_\_\_\_\_

DRILL CONDUCTED – DATE: \_\_\_\_\_

1. Were the Alarm Maintenance Contractor, Monitoring Contractor and Fire Department notified? Yes ( ) No ( )  
If no, provide detail \_\_\_\_\_
2. Was the Alarm heard in all areas? Yes ( ) No ( )  
If no, which areas did not sound?  
\_\_\_\_\_  
\_\_\_\_\_
3. Did the elevators “ground” when the alarm sounded? Yes ( ) No ( )  
**If no, provide details** \_\_\_\_\_  
\_\_\_\_\_
4. Were the announcements clear and understood? Yes ( ) No ( )  
**If no, provide details** \_\_\_\_\_  
\_\_\_\_\_
5. List any evacuation problems encountered.  
\_\_\_\_\_  
\_\_\_\_\_
6. Did the System reset properly after the drill? Yes ( ) No ( )  
**If no, provide details** \_\_\_\_\_
7. Corrective Actions required \_\_\_\_\_  
\_\_\_\_\_
8. Approximate evacuation time from start of fire alarm until last person exited:



\_\_\_\_\_ minutes

\_\_\_\_\_  
*Signature*

## **PRECAUTIONS DURING REPAIRS, ALTERATIONS AND RENOVATIONS**

### **Fire Detection and Alarm System**

When the system cannot be repaired and returned to full operation, the following precautions should be implemented:

- ☞ The Fire Department and the Alarm Monitoring Station must be called before the fire alarm system is shut down and when it has been returned to normal.
- ☞ A continuous patrol by building staff or security personnel hired for the purpose, to make inspection rounds of all areas of the building every half hour, 24 hours per days.

### **Sprinkler System**

During an interruption of normal sprinkler protection, the following precautions should be implemented:

- ☞ A continuous patrol by building staff or security personnel hired for the purpose, to make inspection rounds of all areas of the building every half hour, 24 hours per days.