



FIRE DRILLS

October 2004

**O**

**F**

**M**

**GUIDELINE**



**TABLE OF CONTENTS**

<b>SECTION</b>	<b>PAGE</b>
<b>Abstract</b> .....	3
<b>1.0 INTRODUCTION</b> .....	4
<b>2.0 DEFINITIONS</b> .....	4
<b>3.0 LEGAL OBLIGATIONS</b> .....	5
<b>4.0 FIRE DRILL OBJECTIVES</b> .....	5
<b>5.0 FIRE DRILL FREQUENCIES</b> .....	6
5.1 Minimum Frequencies .....	6
5.2 Fire Incidents and Accidental Alarms.....	6
<b>6.0 FIRE DRILL PLANNING</b> .....	7
6.1 Nominal Planning Considerations .....	7
6.2 Participation by Occupants .....	8
6.3 Drill Announced Vs. Unannounced .....	8
6.4 Drill Involves Unobstructed Vs. Obstructed Means of Egress .....	8
6.5 Drill Utilizes Simulation Aids and Props .....	8
6.6 Time and Location .....	8
6.7 Pre-Drill and Post-Drill Notifications .....	9
6.8 Fire Drills in Buildings Not Equipped With a Fire Alarm System .....	9
<b>7.0 TYPES OF FIRE DRILLS</b> .....	9
7.1 Types .....	9
7.2 Comprehensive Drills .....	9
7.3 Silent Drills .....	10
7.4 Table Talk Drills .....	10
<b>8.0 SUPERVISORY STAFF TRAINING</b> .....	11
<b>9.0 OCCUPANT TRAINING</b> .....	12
<b>10.0 FIRE DRILL ANALYSIS</b> .....	12
<b>11.0 DOCUMENTATION</b> .....	13
<b>12.0 OTHER RESOURCES</b> .....	13

## **TABLE OF CONTENTS**

**APPENDIX A** – Occupancy Definitions

**APPENDIX B** – Extract from Ontario Fire Code, Section 2.8 Emergency Planning

**APPENDIX C** – Definition of Buildings Within the Scope of Subsection 3.2.6.

**APPENDIX D** – Sample Fire Drill Records

**APPENDIX D 1** – Fire Drill and/or Incident Report

**APPENDIX D 2** – Record of Fire Drill Attendance

**APPENDIX D 3** – Fire Drill Check List and Summary Recommendations

October 2004

OFM Section: Fire Safety Standards at (416) 325-3100

*The reproduction of this guideline for non-commercial purposes is permitted and encouraged. Permission to reproduce the guideline for commercial purposes must be obtained from the Office of the Fire Marshal, Ontario.*

## **Abstract**

This guideline was developed to assist persons to plan, document, coordinate, conduct and monitor fire drills in buildings and occupancies regulated by Section 2.8, Emergency Planning, of the Ontario Fire Code. The guideline also provides guidance about analyzing and documenting fire drills to achieve compliance. This guideline is intended for guidance only and is not to be considered a statement of law in this area.

## 1.0 INTRODUCTION

Where your responsibility involves conducting, coordinating, monitoring or participating in fire drills, you have probably asked yourself a number of questions, including:

- What are the objectives for conducting fire drills?
- How often do fire drills have to be conducted?
- Can a fire incident or accidental alarm be considered a fire drill?
- What does a fire drill involve?
- Who has to participate in fire drills?
- What training is necessary before people participate in fire drills?
- How should fire drills be documented?

This guideline offers answers to these questions and provides useful tips to enhance the effectiveness of your fire drills.

## 2.0 DEFINITIONS

The following words and phrases used in this guideline and in the Ontario Fire Code have the corresponding meanings:

- **Approved** means approved by the **Chief Fire Official**.
- **Building** means any structure used or intended for supporting or sheltering any use or **occupancy**.
- **Chief Fire Official** means the assistant to the Fire Marshal who is the Municipal Fire Chief or a member or members of the fire department appointed by the Municipal Fire Chief under Subsection 1.1.8. or a person appointed by the Fire Marshal under Subsection 1.1.8.
- **Occupancy** means the use or intended use of a building or part thereof for the shelter or support of persons, animals or property. (Refer to Appendix A for further information relating to occupancy definitions.)
- **Owner** means any person, firm or corporation having control over any portion of the **building** or property under consideration and includes the persons in the building or property.
- **Supervisory staff** means those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan and may include the fire department where the fire department agrees to accept these responsibilities.

### **3.0 LEGAL OBLIGATIONS**

While this guideline intentionally references the *Ontario Fire Code* requirements, it is important to note that other regulatory bodies may also have specific requirements outlined in legislation for conducting fire drills. Examples include but are not limited to occupancies regulated under the *Developmental Services Act - R.R.O. 1990, Reg. 70*, the *Day Nurseries Act - R.R.O. 1990, Reg. 262*, the *Nursing Homes Act - R.R.O. 1990, Reg. 832*, and the *Child and Family Services Act - R.R.O. 1990, Reg. 70*.

For reference purposes, Section 2.8, Emergency Planning of the *Ontario Fire Code, O. Reg. 388/97*, as amended is provided in Appendix B. There are many buildings and certain occupancies specified in Section 2.8 required to have a fire safety plan. The fire safety plan must be developed by the owner, approved by the chief fire official, and be implemented. Amongst other things under requirements for emergency planning, supervisory staff must be appointed and be trained to carry out their duties outlined in the fire safety plan. Fire drill procedures must be developed in consultation with the Chief Fire Official. Fire drills play a significant role in the fire safety planning process.

Regardless of what legislation applies to fire drills, the owner, operator or manager as the case may be, must ensure that fire drills are effectively planned, conducted, appropriately monitored and documented to achieve compliance with the applicable regulation.

### **4.0 FIRE DRILL OBJECTIVES**

Preparation is the key to any effective emergency response. Conducting effective fire drills helps building owners, property management and others responsible for fire safety within a building to:

- provide scheduled opportunities for comprehensive fire emergency response training for supervisory staff (those persons delegated with specific duties to carry out during a fire emergency) and others;
- determine whether designated supervisory staff can competently respond in accordance with the emergency fire and evacuation procedures;
- determine whether supervisory staff respond in a timely manner to carry out their duties;
- determine whether sufficient supervisory staff respond in a timely manner to carry out their duties in care and detention occupancies and day-care centres;
- assess the ongoing effectiveness of the emergency procedures under different fire scenario conditions; and
- comply with the Fire Code's mandatory requirement for conducting fire drills.

## 5.0 FIRE DRILL FREQUENCIES

### 5.1 Minimum Frequencies

The objectives described above can be achieved by holding regularly scheduled fire drills. Minimum frequencies for conducting fire drills regulated by the Fire Code include:

- in **day-care centres** and **care and detention occupancies**, fire drills shall be held at least monthly (Care and detention occupancies involve the occupancy or use of a building or part thereof by persons who require supervisory care, medical care or medical treatment or by persons who are under restraint for correctional purposes and are incapable of self preservation because of security measures not under their control. Refer to Appendix A.);
- in **schools attended by children**, total evacuation fire drills shall be held 3 times in each of the fall and spring school terms;
- in **buildings** defined within the scope of Subsection 3.2.6. of the Building Code, fire drills shall be held every 3 months (Refer to Appendix C); and
- in all other buildings, fire drills shall be held once during each 12-month period.

Article 4.12.4.1. of the Fire Code also requires fire drills to be held at intervals not exceeding 6 months in laboratories where flammable and combustible liquids are used or handled.

To be most effective, it may be necessary to conduct fire drills on a more frequent basis. For example, within a care and treatment occupancy, it may be impractical to expect that all employees will be available to participate in a fire drill each month due to the different shifts people work. To ensure that all staff participate in fire drills within a reasonable period of time, the fire drill procedure may include a minimum frequency for individual staff participation. As an example, each employee must participate in a fire drill at least once every three months. To meet this desired frequency, the type of fire drills staff participate in could vary.

To maximize the benefits of fire drills, they should be scheduled and rotated throughout the year in such a way that personnel on all shifts participate in fire drills.

### 5.2 Fire Incidents and Accidental Alarms

Fire officials generally permit an actual fire incident and accidental activation of the fire alarm system to be considered a required fire drill, provided a thorough analysis of the incident occurs and the necessary emergency responses by supervisory staff are assessed, outcomes documented and corrective measures implemented, where applicable. In fact it is important to analyze these types of incidents because they provide an excellent opportunity to assess the emergency procedures and preparedness of staff and occupants involved in an actual incident.

## **6.0 FIRE DRILL PLANNING**

### **6.1 Nominal Planning Considerations**

As noted in Section 2.8 of the Fire Code, the chief fire official must be consulted on the development of fire drill procedures. The procedures for conducting fire drills must be included in the fire safety plan. When developing the fire drill procedures, consider the following factors to ensure the fire drills are relevant:

- the building use and associated fire hazards;
- the safety features provided in the building;
- the desirable degree of participation of occupants other than supervisory staff;
- the number and degree of experience of participating supervisory staff; and
- the testing and operation of the emergency systems installed in buildings within the scope of Subsection 3.2.6. of the Building Code (Refer to Appendix C to determine applicable buildings).

#### **1.0 Participation by Occupants**

In schools attended by children, the Fire Code requires total evacuation drills. Total evacuation drills are considered necessary in these occupancies to ensure the prompt, safe, co-ordinated evacuation of everyone during a real emergency. Total evacuation drills afford the greatest opportunity to assess the emergency responses of supervisory staff and occupants.

The Fire Code recognizes that total evacuation drills are not practical for all occupancies. When developing fire drill procedures, consider the desirable degree of occupant participation. In buildings where the occupants reside or work regularly there, it is desirable to encourage participation in fire drills on a periodic basis. Occupant involvement provides opportunities to assess their preparedness and response. Occupant participation also provides opportunities to use and become familiar with the primary and alternate evacuation routes, identify areas of refuge (where applicable), and become more aware of the building's emergency procedures that apply to them.

In care and treatment occupancies, employee training in the evacuation of occupants needing assistance is paramount over occupant training. While suitable for use during a real emergency, consider that using some emergency evacuation techniques on sick or frail occupants during a fire drill may cause injury. Where patients or others needing assistance are not actually evacuated during drills, it is important to assess how supervisory staff simulate the evacuation of these persons and how training of appropriate evacuation techniques is otherwise provided or obtained.

Recognize that occupants evacuated during a drill or other emergency response may require protection from the weather. Is alternative shelter readily available or are inclement weather kits containing extra coats/boots/blankets, etc. readily available for the temporary protection of vulnerable occupants while they remain outdoors?

### **6.3 Drill Announced Vs. Unannounced**

Fire drills may be pre-announced to building staff or occupants, or they may be unannounced. Bearing in mind that fire drills are primarily conducted for supervisory staff, consideration of the building occupants and the use of the building may determine which method is most appropriate. For example, in a residential building or a building of mixed-use where multiple types of businesses are located, it is probably more appropriate to notify the building occupants in advance of the date and time of the drill. In other buildings, such as a care and treatment occupancy (hospital, long term care facility, etc.), it may be more appropriate to conduct unannounced drills, because in this environment, most employees are considered supervisory staff and are delegated with fire emergency responsibilities requiring assessment.

### **6.4 Drill Involves Unobstructed Vs. Obstructed Means of Egress**

An unobstructed fire drill assumes that all exits and evacuation routes from the building are open and available for use. Occupants and supervisory staff participating in unobstructed drills use the primary evacuation route from the room or area occupied at the time the drill was initiated.

Obstructed drills involve blocking one or more exits or evacuation routes to simulate that fire conditions have obstructed their use. In this type of drill, where a primary evacuation route is obstructed, the occupants use the alternate evacuation route(s), where applicable.

### **6.5 Drill Utilizes Simulation Aids and Props**

Props and other aids may be used to simulate fire, smoke, endangered persons, or other desired circumstances. In advance of the fire drill, participants must be aware of the prop's purpose and potential presence, particularly when the purpose of the prop is not visually obvious. For example, the use of a certain type of light, traffic cone, or other prop to simulate a fire may not mean anything if people have not been instructed of the prop's purpose in advance of the drill.

Caution needs to be exercised when planning to use a smoke generator during a drill. The presence of the simulated smoke may cause unforeseen problems. Provisions must be pre-planned remove the smoke after the drill. In addition, it may be difficult to confine the smoke, or predict its movement during the exercise.

### **6.6 Times and Location**

There is always the concern that fire drills are conducted primarily during weekday day shifts, and supervisory staff participating in these, are the only ones fluent with their responsibilities and emergency responses. To ensure uniform abilities and responses of all supervisory staff, fire drills need to be scheduled at various times to assess responses on other shifts and after regular hours.

Selecting a simulated fire location for the fire drill is also very important. Consider that risks, hazards and responses will vary in different locations in the building. When planning, ask "is the simulated fire scenario and emergency response expectation relevant to the location and circumstances?"

## **6.7 Pre-Drill and Post-Drill Notifications**

Develop appropriate pre-drill and post-drill notification procedures with the fire department and fire alarm system monitoring service provider. The fire department and building management may want to test the monitoring service provider's response to a fire alarm signal. To do this, the monitoring service provider will not be notified in advance of the drill.

## **6.8 Fire Drills in Buildings Not Equipped With a Fire Alarm System**

There are many assembly occupancies required by the Fire Code to conduct fire drills that are located in buildings not equipped with fire alarm systems. In these cases, supervisory staff must be trained to verbally or otherwise instruct and direct the occupants to leave the building using the nearest or alternate exit.

## **7.0 TYPES OF FIRE DRILLS**

### **7.1 Types**

For the purpose of this guideline, there are three types of fire drills:

- Comprehensive
- Silent
- Table Talk

### **7.2 Comprehensive Drills**

Comprehensive fire drills are conducted at the frequencies specified by the Fire Code and involve all of the following activities and considerations:

- The fire alarm system is activated as part of the comprehensive drill [i.e., activated in a manner to assess the response of supervisory staff and building occupants (where applicable) to the alarm condition, or alternatively activated by an individual participating in a given fire scenario situation which is an expected response during the drill].
- Supervisory staff operates emergency systems and equipment as they would in the event of an actual fire, (i.e., where applicable the voice communication or paging system, elevator protocol, smoke control equipment protocol, etc.).
- All supervisory staff that have specific duties identified in the fire safety plan participate (i.e., notification of the fire department, provisions for access for firefighting, evacuating endangered occupants, closing doors, notification of supervisory staff who may be off site and an assessment of their timely response, etc.).
- The fire drill runs long enough to adequately assess the expected responses of supervisory staff and the emergency procedures relative to the scenario expectations (i.e., if the drill is too short, it may not be possible to adequately assess whether sufficient staff have or will respond, etc.).
- The fire drill outcomes are documented and where concerns are identified, corrective measures are implemented.

- The desirable degree of occupant' participation is taken into account. For example, in schools attended by children fire drills involve total evacuation.

### **7.3 Silent Drills**

Silent fire drills are conducted in addition to comprehensive drills, and are more commonly conducted in buildings where there are multiple shifts, special risks or hazards and in situations where staff turnover is frequent. These drills are local exercises conducted in designated departments or specified areas of the building for the purpose of ensuring that all supervisory staff participate in fire drills at a desired frequency. Features of silent fire drills include the following:

- These drills do not involve the actual activation of the fire alarm system. Fire alarm system activation is only simulated.
- Tenant managers, department heads, supervisors or other designated persons monitor the emergency response of individuals in a specific area to a simulated or described fire scenario.
- Participants involved in the area respond to the simulation in accordance with their emergency procedures.
- These drills provide opportunities for assessing the adequacy of the emergency preparedness of persons on all shifts, in individual tenancies, departments or area-specific responses.
- To avoid accidental activation of the fire alarm system during these exercises, the individual initiating and monitoring these drills takes appropriate steps to ensure that the drill remains silent, by notifying personnel in the area in advance of the exercise.
- The fire drill outcomes are documented and where concerns are identified, corrective measures are implemented. In some instances the exercise can be repeated immediately to reinforce appropriate responses by staff and occupants.

### **7.4 Table Talk Drills**

Table talk drills are also conducted in addition to comprehensive fire drills. Similar to silent fire drills, table talk exercises are conducted in designated departments or specified areas of a building. The major difference between a silent drill and table talk drill is that table talk exercises do not involve physical demonstration/simulation of the emergency response activities. When planning table talk drills, consider the following:

- Table talk drills involve facilitated discussion surrounding example fire scenarios.
- Tenant managers, department heads, supervisors or other designated persons facilitate discussion and monitor the recommended emergency responses of individuals to a described fire scenario(s).
- Participants involved in the table talk drills must describe their proposed response to the given scenario. The facilitator assesses the adequacy of the suggested response behaviour and where necessary, uses the opportunity to reinforce correct responses expected of supervisory staff.

Table talk drills provide opportunities to assess adequacy of the emergency preparedness of persons on all shifts, in individual tenancies, departments or area-specific responses. They may help identify local risks or hazards and the need to update procedures and practices. The fire drill outcomes are documented and where concerns are identified, corrective measures are implemented. In some instances after the table talk discussion a silent drill or comprehensive drill could be initiated to reinforce appropriate responses by staff and occupants.

## **8.0 SUPERVISORY STAFF TRAINING**

Supervisory staff must be instructed in the fire emergency procedures described in the fire safety plan before they are given any responsibility for fire safety. A copy of the fire emergency procedures and other duties for supervisory staff as laid down in the fire safety plan must also be given to supervisory staff.

In buildings falling within the scope of Subsection 3.2.6. of the Building Code (refer to Appendix C), supervisory staff training shall also include:

- instruction on the use of the voice communication system;
- procedures for use of elevators and for evacuation of persons in need of assistance;
- action to be taken in initiating any smoke control or other fire emergency systems installed in a building in the event of fire until the fire department arrives;
- procedures established to facilitate fire department access to the building and fire location within the building; and
- the instructions for the supervisory staff and fire department for the operation of the fire emergency systems.

Fire drills can be used to provide additional training for staff, to allow them to become more familiar with the use of the building's fire safety systems. Supervisory staff should practice using the voice communication system and any other equipment (such as resetting the fire alarm system) so that they can carry out their responsibilities during or after a real emergency with experience and confidence.

All personnel with specific responsibilities should attend a debriefing meeting after every comprehensive fire drill and silent drill. The reason for the meeting is to review the procedures and reactions of all participants. During the debriefing, challenging areas can be identified and solutions can be implemented.

In assembly, mercantile, and business and personal service occupancies, supervisory staff must be instructed on procedures to follow to affect orderly evacuation of occupants when necessary.

## **9.0 OCCUPANT TRAINING**

Even though the Fire Code states fire drills are to be held for supervisory staff, it is important to periodically assess the emergency preparedness of building occupants other than supervisory staff, to ensure they understand the emergency procedures to follow upon discovery of fire or hearing the fire alarm signal(s). Periodically survey building occupants on their knowledge of fire safety matters within the building. Building occupants should be encouraged to participate in fire drills to enhance their fire safety knowledge and familiarize themselves with critical building features.

In some assembly occupancy settings where occupants are unfamiliar with the building, it may be a good practice to provide an audible announcement, or project an image prior to the start of each program, briefly describing the emergency procedures and the location of exits to be used in an emergency.

In care and treatment occupancies and day-care centres, employee training is paramount to occupant training, recognizing that occupant safety is for the most part dependant upon the emergency response by staff. For this reason in these occupancies, every employee is generally considered as supervisory staff.

## **10.0 FIRE DRILL ANALYSIS**

Due to the size of the building and the number of supervisory staff participating in the fire drill, it will likely be desirable and necessary to have more than one person involved with the fire drill assessment. The person(s) participating in the analysis of the responses and outcomes must be fluent with the emergency procedures expected of personnel being assessed during the exercise. For example, at least one or more persons must be present to monitor the fire drill in the vicinity of the simulated fire origin, while other persons, such as designated managers or supervisors, observe responses and activities in other areas.

As part of every fire drill, the following supervisory staff responses and outcomes require analysis:

- discovering of the fire;
- sounding the fire alarm (responses involving coded voice messages, second stage alarm, etc.);
- notifying the fire department;
- establishing provisions for access for fire fighting;
- responding to the fire alarm signal(s) and coded voice messages;
- evacuating endangered occupants (evacuation techniques, safe areas of refuge, horizontal evacuation, vertical evacuation, establishment of carrying teams, stairway teams and receiving teams where applicable, etc.); and
- confining, controlling and/or extinguishing the fire.

Where applicable, additional analysis is necessary to determine the adequacy of procedures and responses by designated supervisory staff or other persons operating or using equipment, such as:

- voice communication or paging systems;
- smoke control equipment, fixed fire extinguishing system or other specialized fire protection device(s);
- firefighter elevators, passenger elevators;
- designated equipment or machinery that must be shut down;
- electromagnetic locking and door release or hold open device(s);
- emergency power system transfer where applicable; and
- the fire alarm system and other equipment that requires resetting.

Periodically fire drills should involve the use and assessment of the alternative measures outlined in the fire safety plan, for any shutdown of fire protection equipment and systems or part thereof.

## **11.0 DOCUMENTATION**

Fire drills must be documented. As a minimum, the documentation must be retained for a period of at least 12 months after the drill. The documentation should identify the date of the drill, persons participating, the type of drill, fire drill scenario, and the summary analysis and outcomes of the fire drill.

Appendix D contains sample report forms that may be suitable to use to document fire drills. The fire department should be consulted to determine the type of documentation preferred.

## **1.0 OTHER RESOURCES**

The Office of the Fire Marshal website found at [www.ofm.gov.on.ca](http://www.ofm.gov.on.ca) contains a variety of useful technical guidelines and related materials. Relevant resources include:

- *Fire Safety Planning for Industrial Occupancies* (TG-02-2000)
- *Preparation of a Smoking Policy in Long-term Care Facilities* (TG-03-2002)
- *Fire Safety Planning for Institutional Facilities* (TG-02-1999)
- *Fire Safety Planning for Recycling Facilities and Waste Processing Operations* (TG-06-1998)
- *Staffing Levels for the Emergency Evacuation of Care and Treatment Facilities* (TG-01-1998)
- *Guidelines for Stairwell Signs in Multi-Storey Buildings* (TG-00-1998)

The Fire Marshal's Public Fire Safety Council provides and sells useful resource materials and training aids designed to assist fire safety educators and others in enhancing fire safety awareness and emergency preparedness. The materials can be obtained and ordered through Fire Marshal's Public Fire Safety Council website found at [www.firesafecouncil](http://www.firesafecouncil). Examples of resources include:

- *Fire Safety Training for Employees of Care and Treatment Occupancies* (resource manual and CD);
- *Every Second Counts* (A video training component for use in care and treatment occupancies);
- *Industrial Fire Safety - An Interactive Guide to Managing Your Fire Risk* (A CD containing 18 fire prevention modules).

# APPENDIX A

## Occupancy Definitions

**Group A** – *Assembly occupancy* means the *occupancy* or the use of a *building*, or part thereof, by a gathering of persons for civic, political, travel, religious social, educational, recreational or like purposes, or for the consumption of food or drink.

**Group B** – *Care or detention occupancy* means the *occupancy* or use of a *building* or part thereof by persons who,

- (a) are dependent on others to release security devices to permit egress,
- (b) receive special care and treatment, or
- (c) receive supervisory care.

*Care and treatment occupancy* (Group B, Division 2) means an *occupancy* in which persons receive special care and treatment.

*Care occupancy* (Group B, Division 3) means an *occupancy* in which persons receive special or supervisory care because of cognitive or physical limitations, but does not include a *dwelling unit*.

*Detention occupancy* (Group B, Division 1) means an *occupancy* in which persons are under restraint or are incapable of self preservation because of security measures not under their control.

**Group C** – *Residential occupancy* means the *occupancy* or use of a *building* or part thereof by persons for whom sleeping accommodation is provided but who are not harboured or detained to receive medical care or treatment or are not involuntarily detained.

**Group D** – *Business and personal services occupancy* means the *occupancy* or use of a *building* or part thereof for the transaction of business or the rendering or receiving of professional or personal services.

**Group E** – *Mercantile occupancy* means the *occupancy* or use of a *building* or part thereof for the displaying or selling of retail goods, wares or merchandise.

**Group F** – *Industrial occupancy* means the *occupancy* or use of a *building* or part thereof for the assembling, fabricating, manufacturing, processing, repairing or storing of goods and materials.

*High hazard industrial occupancy* (Group F, Division 1) means an *industrial occupancy* containing sufficient quantities of highly *combustible* and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard.

*Low hazard industrial occupancy* (Group F, Division 3) means an *industrial occupancy* in which the *combustible* content is not more than 50 kg/m<sup>2</sup> or 1200 MJ/m<sup>2</sup> of *floor area*.

*Medium hazard industrial occupancy* (Group F, Division 2) means an *industrial occupancy* in which the *combustible* content is more than 50 kg/m<sup>2</sup> or 1200 MJ/m<sup>2</sup> of *floor area* and not classified as *high hazard industrial occupancy*.

# Appendix B

(Extracted from the Ontario Fire Code)  
SECTION 2.8 EMERGENCY PLANNING

## Subsection 2.8.1. General

### *Application*

2.8.1.1. (1) The requirements of this Section shall apply to **buildings** containing a

(a) Group 'A' or 'B' **occupancy**, (*AUTHOR'S NOTE: Some group homes containing an occupant load of less than 10 persons may be considered a Group B Division 3 occupancy resulting from Ontario Building Code amendments adopted in 1998. Group home operators should consult with their regulatory authority to determine their occupancy classification.*)

(b) Group 'C' **occupancy** where the **occupant load** exceeds 10,

(c) Group 'D' **occupancy** where the **occupant load** exceeds 300,

(d) Group 'E' **occupancy** where the **occupant load** exceeds 300,

(e) Group 'F' Division 1 **occupancy** where the **occupant load** exceeds 25,

(f) Group 'F' Division 2 **occupancy** where the **occupant load** exceeds 100, or

(g) Group 'F' Division 3 **occupancy** where the **occupant load** exceeds 300.

(2) Despite Sentence (1), the requirements of this Section shall apply to **buildings** or premises

(a) containing 4 **storeys** or more, including **storeys** below **grade**,

(b) subject to the provisions of Subsection 3.5.3.,

(c) subject to the provisions of Article 4.1.5.6.,

(d) subject to the provisions of Article 4.12.4.1.,

(e) regulated by Section 9.3 (Boarding, Lodging and Rooming Houses),

(f) subject to the provisions of Sentence 9.5.3.1.(3), or

(g) used as a convalescent home or children's custodial home providing sleeping accommodation for more than 3 persons.

(3) Despite Sentence (1), the requirements of this Section apply to recreational camps regulated under the **Health Protection and Promotion Act**.

*Instructions in emergency procedures*

2.8.1.2. (1) **Supervisory staff** shall be instructed in the fire emergency procedures as described in the fire safety plan before they are given any responsibility for fire safety.

(2) **Supervisory staff** shall be available on notification of a fire emergency to fulfil their obligation as described in the fire safety plan.

(3) It is not necessary that **supervisory staff** be in the **building** on a continual basis.  
Subsection 2.8.2 Fire Safety Plan

*Measures in a fire safety plan*

2.8.2.1. (1) A fire safety plan shall include

- (a) the emergency procedures to be used in case of fire including sounding the fire alarm, notifying the **fire department**, provisions for access for fire fighting, instructing occupants on procedures to be followed when the fire alarm sounds, evacuating endangered occupants and confining, controlling and extinguishing the fire,
- (b) the appointment and organization of designated **supervisory staff** to carry out fire safety duties,
- (c) the instruction of **supervisory staff** and other occupants so that they are aware of their responsibilities for fire safety,
- (d) the holding of fire drills including the emergency procedures appropriate to the **building**,
- (e) the control of fire hazards in the **building**,
- (f) the maintenance of **building** facilities provided for the safety of occupants,
- (g) the provision of alternative measures for the safety of occupants during any shutdown of fire protection equipment and systems or part thereof, and
- (h) instructions, including schematic diagrams, describing the type, location and operation of **building** fire emergency systems.

(2) The fire safety plan shall be prepared, **approved** and implemented in **buildings** regulated by Article 2.8.1.1.

(3) The fire safety plan shall be kept in the **building** in an **approved** location.

### *Institutional occupancies*

2.8.2.2. There shall be sufficient **supervisory staff** available in **institutional occupancies** to carry out the duties as required in the fire safety plan.

### *High buildings*

2.8.2.3. (1) The fire safety plan in **buildings** within the scope of Subsection 3.2.6. of the **Building Code** shall, in addition to the requirements of Sentence 2.8.2.1.(1), include

- (a) the instruction of **supervisory staff** on the use of the voice communication system,
- (b) the procedures for use of elevators and for evacuation of persons in need of assistance,
- (c) the action to be taken by **supervisory staff** in initiating any smoke control or other fire emergency systems installed in a **building** in the event of fire until the **fire department** arrives,
- (d) the procedures established to facilitate **fire department** access to the **building** and fire location within the **building**, and
- (e) the instructions for the **supervisory staff** and **fire department** for the operation of the fire emergency systems.

2.8.2.4. A copy of the fire emergency procedures and other duties for **supervisory staff** as laid down in the fire safety plan shall be given to all **supervisory staff**.

### *Posting fire emergency procedures*

2.8.2.5. At least one copy of the fire emergency procedures shall be prominently posted and maintained on each **floor area**.

### Subsection 2.8.3. Fire Drills

#### *Procedures*

2.8.3.1. (1) The procedure for conducting fire drills described in Clause 2.8.2.1.(1)(d) shall be included in the fire safety plan, taking into consideration

- (a) the **building occupancy** and its fire hazards,
- (b) the safety features provided in the **building**,
- (c) the desirable degree of participation of occupants other than **supervisory staff**,
- (d) the number and degree of experience of participating **supervisory staff**, and

(e) the **testing** and operation of the emergency systems installed in **buildings** within the scope of Subsection 3.2.6. of the **Building Code**.

(2) The fire drill procedures required in Sentence (1) shall be prepared in consultation with the **Chief Fire Official**.

***Frequency***

2.8.3.2. (1) Fire drills as described in Sentence 2.8.3.1.(1) shall be held once during each 12-month period for the **supervisory staff**, except that

(a) in day-care centres and Group ‘B’ **occupancies**, fire drills shall be held at least monthly,

(b) in schools attended by children, total evacuation fire drills shall be held 3 times in each of the fall and spring school terms, and

(c) in **buildings** within the scope of Subsection 3.2.6. of the **Building Code**, fire drills shall be held every 3 months.

(2) Records of a fire drill required by Sentence (1) shall be kept for 12 months after the fire drill.



# Appendix C

## 3.2.6. Additional Requirements for High Buildings

### 3.2.6.1. Application

(1) This Subsection applies to a *building*

(a) of Group A, D, E or F *major occupancy* classification that is more than

(i) 36 m high, measured between *grade* and the floor level of the top *storey*, or

(ii) 18 m high, measured between *grade* and the floor level of the top *storey*, and in which the cumulative or total *occupant load* on or above any *storey* above *grade*, other than the first *storey*, divided by 1.8 times the width in metres of all *exit* stairs at that *storey*, exceeds 300,

(b) containing a Group B *major occupancy* in which the floor level of the highest *storey* of that *major occupancy* is more than 18 m above *grade*,

(c) containing a *floor area* or part of a *floor area* located above the third *storey* designed or intended as a Group B, Division 2 or 3 *occupancy*, and

(d) containing a Group C *major occupancy* whose floor level is more than 18 m above *grade*.

# Appendix D

## Sample Fire Drill Records

Appendix D1 through D3 contain sample fire drill forms. These forms are provided as a guide only. It may be desirable to modify the forms for use within your building, by retaining only those portions of the form that are relevant to your circumstances.

### **APPENDIX D 1 – Fire Drill and/or Incident Report**

This form is intended to be used and completed by department heads, managers or designates responsible for monitoring supervisory staff and where applicable employee responses and also for assessing the operation of specified building features during comprehensive fire drills and at any time the fire alarm audible signal activates. The form is also suitable for documenting silent drills and table talk drills that are initiated by a department head, manager or designate within a specific area or department. Once completed, the form is forwarded to the person responsible for managing fire safety within the building and for record retention purposes.

### **APPENDIX D 2 – Record of Fire Drill Attendance**

This form is intended to serve as documentation of persons that participated in fire drills. This form is intended to be printed on the reverse side of the **Fire Drill and/or Incident Report** page to identify those that participated in the corresponding drill. As a minimum, it is essential to document the designated supervisory staff attending each fire drill for the purpose of demonstrating Fire Code compliance.

### **APPENDIX D 3 – Fire Drill Checklist and Summary Recommendations**

This form is to be completed by the person responsible for coordinating the building fire safety program, which includes conducting and monitoring fire drills and monthly fire alarm system testing. The form serves two purposes. First, it provides a useful checklist of activities that typically must be undertaken every time a comprehensive fire drill or monthly fire alarm system test is conducted. Secondly, the form can be used as a permanent record of monthly fire alarm system tests and unscheduled fire alarm system activations. Where a form of this nature is used to document monthly fire alarm system tests, the document must be retained for a minimum of 2 years.

<b>APPENDIX D 1 - Sample Fire Drill and/or Incident Report</b>						
<b>Date:</b>		<b>Time:</b>		<b>Location:</b>		
<b>Comprehensive Drill</b>		<b>Silent Drill</b>		<b>Table Talk</b>	<b>Other</b>	
<b>Instructions</b> Each department head, manager or designate is responsible for monitoring employee responses and assessing building features during every fire drill and at any time the fire alarm audible signal activates. Forward this completed form after each drill to (insert name of person and department)						
<b>Section 1   Assessment of persons discovering / responding to fire</b>						
Describe fire drill scenario, fire incident or fire alarm occurrence:						
<b>Simulated or Actual Activities</b>			<b>Yes</b>	<b>No</b>		
Were people in immediate danger evacuated?					Zone of origin evacuated?	
Were doors closed and latched to confine the fire and reduce smoke spread?						
Was the fire alarm manually activated (if the scenario required this action)?						
Was the fire department called or switchboard notified as required by procedures?						
Was an attempt made to extinguish the fire?					Was attempt appropriate?	
Did sufficient staff respond and evacuate endangered occupants in an organized and timely manner?						
Was scene supervision appropriate?					Were instructions clear?	
Horizontal evacuation conducted?					Vertical Evac. Conducted?	
Comments/observations/recommendations on emergency responses:						
<b>Assessment of specialized Supervisory Staff responses</b>					<b>Yes</b>	<b>No</b>
Was the fire department notified by phone promptly and correctly?						
Were verbal instructions correct and clearly stated over the voice communication system?						
Did designated staff respond correctly to provide fire department assistance and access?						
If "No" was answered for question(s) above, provide comments/observations/recommendations:						
<b>Section 2   Did the following features operate properly in your area?</b>					<b>Yes</b>	<b>No</b>
A) fire alarm pull station (where applicable) and audible fire alarm devices						
B) voice communication system (voice messages were audible)						
C) self-closing doors closed and latched upon fire alarm system activation						
D) electro-magnetic locking devices released locked doors upon fire alarm system signal						
E) fire hose stations, fire extinguishers and/or sprinklers (where applicable)						
<b>Section 3   Did employees respond properly upon hearing the fire alarm signal and voice communication instructions?</b>					<b>Yes</b>	<b>No</b>
A) checked rooms and area for fire and closed doors immediately						
B) designated staff responded to the fire area to assist with evacuation						
C) hazardous equipment safely shut down where appropriate (i.e. oxygen, dryers)						
D) corridors were clear and unobstructed						
If "No" was answered for question(s) above, provide comments/observations/recommendations:						
<b>Print Name:</b>			<b>Signature:</b>		<b>Date:</b>	



<b>APPENDIX D 3 - Sample Fire Drill Check List and Summary Recommendations</b>			<b>Date:</b>	
<b>This form is to be completed by the person responsible for conducting and coordinating the building fire safety program, which includes monitoring fire drills and monthly fire alarm system test(s).</b>			<b>Yes</b>	<b>No</b>
Fire department notified before fire alarm test or fire drill? Fire department phone # Name of person contacted:				
Alarm Monitoring Company notified before fire alarm test or fire drill? Monitoring company phone # Name of person contacted:				
Fire alarm system tested on secondary source of power (Battery or Generator as applicable)?				
Fire alarm system activated correctly?				
Second stage alarm signal activated correctly (where applicable)?				
Annunciator(s) indicated the correct fire alarm zone of alarm origin?				
"All clear" announced and staff instructed to sign fire drill attendance record?				
Fire alarm system reset and returned to primary power source?				
Fire alarm ancillary devices reset and checked:				
Electro-magnetic locking devices				
Elevators				
HVAC				
Hold-open features on fire doors				
Fire alarm system clear of any "trouble"?				
Confirmed fire alarm monitoring company received alarm signal?				
Fire department notified after drill?				
When applicable, confirmed fire department received alarm signal?				
<b>Unscheduled Fire Alarm Signal Activation</b>	<b>Date:</b>	<b>Time:</b>	<b>Applicable</b>	
Cause of alarm determined to be:				
Fire Department Arrival Time (if known):			<b>Yes</b>	<b>No</b>
Fire alarm control panel reset after emergency was over?				
Fire alarm "trouble signal" clear?				
"All clear" announced and staff instructed to sign fire drill attendance record?				
Fire alarm ancillary devices reset and checked:				
Electro-magnetic locking devices				
Elevators				
HVAC				
Hold-open features on fire doors				
Fire alarm system repair company notified of repairs required? Time: Name of person contacted:				
Fire alarm system repaired – Date:			Time:	
Conclusions, recommendations for changes to fire safety plan or procedures:				
<b>Print Name:</b>		<b>Signature:</b>		<b>Date:</b>