Fire Inspector Level 1 & II Chapter 7 – Occupant Safety and Evacuation Plans – Part 3



## Fire Inspector I & II

## CHAPTER SEVEN OCCUPANCY SAFETY AND EMERGENCY PLANS

Part 3



Slide 1	Welcome to Part 3 of Occupant Safety and Evacuation Plans
	In part 3 we will discuss:
	The purpose of fire safety, evacuation
	When a plan is required
	What the plan should contain
	Who is responsible to develop the plan
	Who should have copies of the plan and where it should be located
	Special requirements for the disabled
	Safe Refuge Areas
	<ul> <li>Information about the appointment, organization, and instruction of designated supervisory staff</li> </ul>
	The owner's responsibility
	<ul> <li>Maintenance procedures for fire protection equipment</li> </ul>
	<ul> <li>Temporary procedures for out of service fire protection equipment.</li> </ul>
	Silencing of alarms
	Diagrams of fire safety systems and evacuation routes
Slide 2	A Fire Safety Plan is a detailed document designed to deal with all aspects of
	fire safety relating to a specific building or property. The document is intended
	to be a reference manual outlining the fire safety practices to be routinely
	used.
	Fire Safety Plans are required by the fire code and are action plans intended to ensure:
	Emergency responders are notified of a fire emergency
	• Emergency responders will not be delayed in carrying out their duties
	that designated supervisory staff are appointed and organized to respond to fire emergencies
	<ul> <li>Instructions, including schematic diagrams, describing the type,</li> </ul>
	location and operation of building fire emergency systems will be established
Slide 3	Fire safety plans support effective fire suppression efforts to reduce the spread of fire and damage to the building.
	Fire Safety Plans are also intended to identify and limit fire hazards and ensure building facilities, systems, equipment, and devices will be properly inspected and maintained.
	The building owner is responsible to develop a Fire Safety Plan designed to identify the actions that should be taken by the occupants and building

	management in the event of a fire or similar emergency. In addition, actions are identified which must be implemented to maintain fire protection systems and assist in the prevention of fire on the premises. The Fire Safety Plan therefore covers fire prevention, evacuation, and emergency response.
Slide 4	A copy of the plan is to be located in the building and copies made available to all supervisory staff, employees and fire department personnel upon request. It is recommended a copy of the plan be kept at the fire alarm annunciator panel or at the fire alarm control panel.
	All recipients of this plan are required to study the procedures outlined and be prepared to follow these procedures in case of fire or any other emergency. The fire code defines Supervisory staff as those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan.
	References: NFC 1.4.1.2 supervisory staff 2.8 Emergency planning
Slide 5	2.8.2. Fire Safety PlansFire Safety Plans are required for all buildings that have a fire alarm system
	<ul> <li>and:</li> <li>All Group 'A' (assembly) occupancies like churches, community halls, restaurants, pubs etc.</li> <li>All Group 'B' (health care) or detention occupancies</li> <li>Group 'C' (residential) where the occupant load exceeds 10 people</li> <li>Group 'D' (offices) and Group "E" (stores and mercantile) where the occupant load exceeds 300 persons</li> </ul>
Slide 6	<ul> <li>The implementation of a Fire Safety Plan helps to ensure the effectiveness of fire safety features in the building and the protection of occupants from fire.</li> <li>An effective Fire Safety Plan: <ul> <li>Reduces the incidence of fire</li> <li>Promotes fire hazard identification and elimination</li> <li>Promotes occupant safety and awareness</li> <li>Increases employee morale by allaying safety concerns</li> <li>Coordinates building and fire department resources during a fire emergency</li> <li>Reduces the potential impact of a fire on the occupants, business and community by reducing injuries, dollar losses and potential liability</li> <li>Enhances Fire Code compliance</li> </ul> </li> </ul>

Slide 7	Fire safety plans differ greatly depending on the size, use and occupancy of the building. Plans for a large hospital or industrial complex will require extensive development to address all the hazards and safety systems associated with the building. On the other hand, Fire Safety Plans for small low hazard - low occupant load buildings will be straight forward and can be easily developed by the building owner or manager. The fire code requires Fire Safety Plans to be developed by the owner in cooperation with the fire department. There are templates available on fire department websites and at first glance many of them may seem overwhelming due to the size of the documents. Some are reasonably straight forward, however, and utilize a fill in the blank format. Encourage the building owner to find a plan that meets the specific needs of their building. In most cases a simple easy to follow plan will be most effective.
	There are also companies that specialize in the development of fire safety plans many of which can be found on the internet.
Slide 8	Every Fire Safety Plan should include:
	<ul> <li>Emergency procedures to be used in case of fire including sounding the alarm</li> <li>Notifying the fire department</li> <li>Provisions for access for fire fighting</li> <li>Instructions to occupants on procedures to be followed when the fire alarm sounds</li> </ul>
	<ul> <li>Evacuating endangered persons</li> </ul>
	Confining, controlling, and extinguishing the fire
Slide 9	Some occupants of a building may require special assistance during evacuations because cognitive or physical limitations make them unable to proceed independently to a place of safety. Fire safety for these people will depend to a large extent on preplanning and on their awareness of the fire protection measures incorporated into the building. In some buildings, it may be appropriate to advise occupants of these provisions by providing handouts, copies of the fire safety plan or posting notices throughout the building.
	Many buildings have places of refuge where people who are unable to exit the building unaided can wait to be rescued by the fire department. These are normally located in stair towers that are fire separated from the remainder of the building and are pressurized with fresh air. Emergency lighting and communication systems should also be provided in areas of refuge.
Slide 10	In residential occupancies supervisors should be aware of persons requiring special assistance during evacuation and should inform the fire department of their location. In some jurisdictions red dots or stars are placed outside

	residential suites at floor level on the baseboard to indicate that the occupant of that dwelling unit may require assistance to exit the building.
Slide 11	A fire safety plan is of little value if it is not reviewed periodically so that all supervisory staff remain familiar with their responsibilities. The fire code requires fire safety plans to be reviewed at intervals not greater than 12 months to ensure that it takes account of changes in the use and other characteristics of the building. The fire department should be notified and agree if the owner wishes to make changes to the fire safety plan. Fire drills are a good method to evaluate the fire safety plan.
	The fire department must be notified and agree if the owner wishes to make changes to the fire safety plan. If changes are made to the fire safety plan notification and agreement from the fire department should be sought.
Slide 12	Preparation is the key to effectively responding to emergencies. Fire drills help building owners, property management and others responsible for fire safety within a building to:
	<ul> <li>Conduct fire emergency response training for supervisory staff and others</li> <li>Determine the competency level of supervisory staff to respond in a timely manner and carry out their duties</li> </ul>
	<ul> <li>Determine occupants' response to the fire alarm activation</li> <li>Assess the ongoing effectiveness of the emergency procedures</li> <li>Comply with the requirement for conducting fire drills.</li> </ul>
Slide 13	<ul> <li>Fire Drills should be done:</li> <li>Monthly in day-care centers and care and detention occupancies</li> <li>Every 3 months in laboratories</li> <li>In schools 3 times in each of the fall and spring school terms</li> <li>In high buildings every 3 months; and in all other buildings, fire drills shall be held once during each 12-month period</li> </ul>
	Many fire officials consider an actual fire incident or accidental activation of the fire alarm system as a required fire drill, provided a thorough analysis of the incident occurs. 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.
	Reference: NFC 2.8.3
Slide 14	Fire drill procedures are part of the building's Fire Safety Plan which should be developed in cooperation with the fire department. When developing the fire

	drill procedures, consider the following factors to ensure the fire drills are relevant:
	<ul> <li>The buildings use and associated fire hazards</li> </ul>
	The safety features provided in the building  The device block of a statistical device of a stati
	The desirable degree of participation of occupants other than
	supervisory staff
	<ul> <li>The testing and operation of the emergency systems installed in</li> </ul>
	buildings
Slide 15	In buildings where the occupants live or work, they should be encouraged to
	participate in fire drills. Occupant involvement provides opportunities to
	assess their preparedness to respond. 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 a residential building or a building of mixed-use where multiple types of
	businesses are located, it is 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 facility 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.
Slide 16	Encourage building owners or managers to consult with the fire department
	and alarm monitoring company, if the system is monitored, prior to
	conducting any fire drill. Fire drill documentation should be retained for a
	period of at least 24 months after the drill. The documentation should identify
	the date of the drill, persons participating and an analysis of the fire drill.
	Building owners can contact the fire department for more information. The
	Ontario Fire Marshal's Office has a good informational guide that can be
	obtained online.
Slide 17	The plan should also include instructions on ways to prevent fires and methods
	to control fire hazards throughout the building. In their day-to-day activities'
	occupants should be aware of potential fire hazards like accumulation of
	combustibles, potential ignition sources, defective fire safety equipment,
	obstructed exits or fire doors that are wedged open.
Slide 18	The fire safety plan should also contain information about the appointment,
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	organization and instruction of designated supervisory staff including their fire
	safety duties and responsibilities. Depending on the complexity of the building
	and the Fire Safety Plan there may be a number of positions such as Chief Fire
	Warden, Fire Warden, Assistant Fire Warden and Floor Warden(s). The
	supervisor is responsible for the administration of the plan, training of other
	positions, resolving any fire hazards and performing other duties outlined in
	the fire safety plan.

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Slide 19	The owner is responsible to appoint and train supervisory staff who will be responsible to direct people to move in an orderly fashion in the event of a fire and in carrying out appropriate fire control measures until the fire department arrives. but that they should be available to fulfill their obligations as described in the fire safety plan when they are notified of a fire emergency.
	In hospitals and nursing homes, staff must be in the building at all times to assist occupants who are not capable of caring for themselves in an emergency.
	The training and education of staff are crucial elements in clearly notifying and instructing occupants during an emergency. These procedures should also include training authorized personnel to silence fire alarm and alert signals under specified conditions. If special keys or devices are required to operate the alarm system, they should be readily available to supervisory staff.
Slide 20	Also included in fire safety plans are:
	Detailed maintenance procedures for fire protection systems and building features. This will assist building owners to understand what inspection, testing and maintenance is required for their fire systems and who to call if there are problems. It will also aid responding firefighters to quickly identify the type of system and potential problems.
	The plan should also include the identification of alternate fire safety measures in the event of a temporary shutdown of fire protection equipment or systems, so that occupant safety can be assured. This may include such measures as silencing the fire alarm system, shutting off the water to the sprinkler system or posting a fire watch. This should only be done after the fire department has arrived on site and confirmed there is no fire. It is the building owner's or fire safety supervisor's responsibility to reset alarms, and this must be clearly stated in the plan.
	Also included will be instructions and schematic diagrams describing the type, location and operation of building fire emergency systems. This will assist responders in identifying the location of the emergency and support fire suppression operations.
Slide 21	In part 3 we discussed:
	The purpose of a fire safety plan
	When a plan is required
	<ul><li>What the plan should contain</li><li>Who is responsible to develop the plan</li></ul>
	<ul> <li>Who is responsible to develop the plan</li> <li>Who should have copies of the plan and where it should be located</li> </ul>
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	<ul> <li>Special requirements for the disabled</li> </ul>
	Safe Refuge Areas
	<ul> <li>Information about the appointment, organization, and instruction of designated supervisory staff</li> </ul>
	<ul> <li>The owner's responsibility to develop the plan in cooperation with the fire department</li> </ul>
	<ul> <li>Maintenance procedures for fire protection equipment</li> </ul>
	• Temporary procedures for out of service fire protection equipment.
	Silencing of alarms
	<ul> <li>Diagrams of fire safety systems and evacuation routes</li> </ul>
Slide 21	Chapter quiz.
Slide 22	That's the end of Chapter 7 Occupant Safety and Evacuation Plans. You are now ready to move on to Chapter 8 which deals with Fire Alarm and Detection Systems but please complete the quiz for Chapter 7 first.
	If you have any questions now is a good time to contact your instructor.