

Fire Safety Plan (USA)

Workplace Safety & Health | Program Development

The development of a Fire Safety Plan (hereinafter referred to as the "Plan") will help ensure the optimum use of all fire prevention and life safety features installed in a building. The complete plan will reflect all the resources available to the building occupants and identify the basic measures that will aid in an orderly and safe evacuation of all occupants in an emergency. An effective Plan that enhances the life safety of staff and building occupants requires:

- A commitment by building management and staff to the safety of occupants.
- Knowledge of the building and its fire safety protection equipment by supervisory staff.
- A clear understanding by supervisory staff of the fire safety procedures in the plan and how to implement them properly.
- The cooperation and education of building occupants.

The following information discusses the preparation and implementation of a Fire Safety Plan.

Fire Safety Committee

A Fire Safety Committee should be established. The committee should include representation from management, supervisory staff, and building occupants. (Examples of building occupants would include workers in a plant, occupants of an office building, and residents of a nursing home.). For large facilities, a representative from the local fire department is also recommended. The principle of getting people involved helps to promote the importance of fire safety as it generates the necessary input from all concerned parties.

The committee can assist management and supervisory staff to promote the importance of fire safety planning. They can emphasize the need for regular fire drills (no matter how inconvenient they may appear to some people) and be key players in providing assistance to ensure the facility has a viable and effective Plan. The committee can also help to facilitate the delivery of fire safety education programs to building occupants and staff.

Elements of the Plan

A Fire Safety Plan should include the following elements:

- The appointment and organization of designated supervisory staff by position, with related duties and responsibilities during an emergency.
- Emergency procedures to be used in case of fire, including: sounding the alarm, notifying the fire department, provisions for access for fire fighting, evacuating building occupants, and confining, controlling and extinguishing the fire.
- Instructions for building occupants and staff on fire prevention methods and what to do in case of fire.
- The method of training supervisory staff for fire emergencies.
- The method and frequency of conducting fire drills.
- The control of fire hazards throughout the building.
- Detailed maintenance procedures for fire protection systems and building facilities.

- 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 maximized.
- Floor plans that feature the type, location, and operation of fire protection systems, access for fire fighting, and all exit facilities.
- Detailed instructions for supervisory staff on the use of any emergency equipment, such as the voice communication system, the fire alarm system, smoke control system, or emergency power supply system.
- Procedures for the use of elevators and the evacuation of building occupants requiring special assistance.
- Established procedures for assisting the fire department in accessing the building and locating the fire. For large facilities it is recommended that floor plans showing exit locations be posted on each floor.
- An Accountability System that can account for all building occupants following an evacuation, including notification to the Fire Department of any missing occupants and their last known location.

Plan Distribution

A copy of the Plan should be provided to those who will be responsible for taking the appropriate actions to maximize the safety of building occupants.

A copy of the plan should be made available to the following:

- Fire department
- Facility owner and manager
- Supervisor of administration staff
- Supervisor of maintenance staff

It is also appropriate to have key sections of the plan posted in staff work areas, lunch rooms, and any information bulletin boards provided for the occupants of the building. Additionally, all occupants should be provided with information that includes the specific actions to be taken when they discover a fire, hear the fire alarm, or when they cannot evacuate.

Appointment and Organization of Supervisory Staff

The ability to react effectively to a fire emergency depends upon a number of factors. For example, the type of building construction (combustible or noncombustible), the size of the building, the number of occupants, the number of personnel available who could respond to the emergency, the type of fire safety equipment available, the hazards that are unique to the facility, and the mobility or ability of building occupants to evacuate on their own.

The organization of supervisory staff should be well planned in order to reduce the risks to building occupants and to the supervisory staff themselves. This is especially true where the facility provides care for building occupants who must rely on others to assist them to evacuate, such as a hospital or nursing home. In this type of environment, the efforts of supervisory staff should be well coordinated and practiced in order to be most effective.

There is a need for complete cooperation and understanding between management and staff of the fire safety responsibilities during an emergency. It is management's responsibility to ensure all personnel are trained and familiar with the information in the Plan.

Plan Responsibilities

Persons preparing the Plan should be familiar with the strategy behind a coordinated evacuation.

For example, during the early stages of a fire emergency, supervisory staff should conduct certain essential activities, including, **notifying the fire department**, providing access for fire fighters, and coordinating the

evacuation of endangered occupants. Where building occupants in a facility have special needs, supervisory staff should be trained in various procedures that could be utilized to evacuate occupants who would require special assistance. In addition, supervisory staff should be familiar with the use of portable fire extinguishers and other equipment that could be utilized in an emergency.

An effective Plan will depend upon the knowledge, experience, and commitment of management personnel. Every supervisor should have a clearly defined role and the authority to respond appropriately. All new staff should receive training in the Plan before responsibilities can be delegated. Training for all staff members should be organized and conducted at least annually.

Responsibilities During an Emergency

It is essential that every organization have supervisory staff trained to respond to a fire emergency in a prompt, positive, and intelligent manner. It is important that every facility have a nucleus of key supervisory staff prepared, through training, to maximize building occupant safety in the event of an emergency.

When the fire alarm activates, supervisory staff with defined duties should carry them out immediately. Supervisory staff, trained to assist in the evacuation of building occupants, should respond to the area of fire alarm origin. When they arrive, circumstances will dictate their appropriate response. Coordinated efforts are necessary to evacuate endangered building occupants from the immediate fire area. Where necessary, efforts should be made to confine and control the fire. This may involve simply closing the door to the fire area and ensuring that it remains closed until fire fighters respond and extinguish the fire. The further evacuation of building occupants requiring special assistance should be coordinated to expand from the area of fire outwards. An Accountability System should be in place to confirm that everyone has safely evacuated the building and that the Fire Department is notified of any missing persons.

Procedures in an Emergency

The procedures that building occupants and staff should follow in an emergency should be detailed in the Plan. All building occupants and staff should be thoroughly familiar with the procedures, and a copy of the procedures should be prominently displayed and maintained on each floor.

Control of Fire Hazards

All staff should receive training in recognizing potential fire hazards that can exist throughout the facility. Therefore, it is recommended that a designated staff member perform a weekly walk-through of the entire facility. The walk-through should include at least the common areas, stairwells, storage, and electrical and furnace rooms of the building.

The following points should be checked to ensure that potential fire hazards are being controlled:

- Ideally, smoking in the facility should be prohibited. Otherwise, smoking by building occupants should be restricted to designated areas.
- Furnishings, such as furniture, carpets, draperies, and wall decorations, should be made of flame-retardant materials.
- Flammable and combustible liquids should be stored in approved containers in accordance with NFPA 30, Flammable and Combustible Liquids Code.
- Flammable liquids or aerosol cans should be properly disposed of.
- Files should be stored in closed steel cabinets and not on open shelving.
- Storage, furnace, maintenance, and electrical rooms should be kept clear of combustible materials.
- Materials or equipment should not be stored in exit stairwells.
- Fire doors should not be wedged open or the self-closing device installed on the door disengaged.

Maintenance of Building Facilities and Fire Protection Equipment

The building owner/manager should:

- Ensure that the building is in compliance with local building and fire codes.
- Ensure that all fire protection features and equipment, such as fire separations, smoke control equipment, emergency lighting, fire alarm systems, automatic sprinkler systems, standpipe systems, fire extinguishers, fixed extinguishing systems, voice communication systems, elevators, and emergency generators, are tested, inspected, and maintained in accordance with applicable NFPA standards, including: NFPA 10, Standard on Portable Fire ExtinguishersNFPA 13, Standard for the Installation of Sprinkler SystemsNFPA 25, Standard for the Inspection, Testing, and Maintenance of Water Based Fire Protection SystemsNFPA 70, National Electric CodeNFPA 72, Fire Alarm CodeNFPA 80, Standard for Fire Doors and Windows
- Maintain records of all fire equipment tests and maintenance.

The plan should also contain detailed instructions on the use of:

- Elevators during a fire
- The voice communication system
- The fire alarm system
- Smoke control equipment (if applicable)
- Emergency power system (including the manual operation of the transfer switches, if applicable)

The fire department should be notified by supervisory staff when there is a temporary shutdown of any fire protection equipment or systems in the building, as well as when it has been restored and returned to service. During the shutdown, to ensure that fire safety within the building is maintained, regular fire safety patrols should be conducted. Persons conducting the patrol should be provided with a means of communication to be used in the event of an emergency.

Fire Drills

In addition to the training in emergency actions to be taken by building occupants and staff in the event of a fire or emergency, the practicing of fire drills should become an integral part of a facility's preparedness.

The purpose of a fire drill is to ensure that the staff and building occupants are familiar with the building's exits and overall evacuation procedures. Therefore, the owners and managers should be aware of the benefits of holding regularly scheduled fire drills that involve all staff. To maximize the benefits of these fire drills, they should be scheduled and rotated throughout the year in such a way that the personnel on all shifts employed in the facility participate.

Although it may be of some inconvenience to building occupants, it is important to have a fire/evacuation drill that involves all of the facility's building occupants and staff. These scheduled fire/evacuation drills should be held at least biannually, or more frequently as required by local fire prevention codes, and designed so that they provide additional experience for the staff. The fire drills can also be used to provide additional training for staff by allowing them to become more familiar with use of the building's fire safety systems. Various exits should be blocked off during these drills so occupants will be familiar with alternate exits.

It is very important that all personnel with specific responsibilities attend a debriefing meeting following every practice fire drill. This meeting will be held to review the procedures and reactions of all participants. During the debriefing, problem areas can be identified and, if necessary, solutions to overcome any deficiencies in the facility's Plan can be discussed and corrected.

Auditing the Plan

An audit of the fire safety systems, equipment, and resources in the facility should include information on the following features:

- Fire alarm systems

- Exit locations
- Fire department access
- Portable fire extinguishers
- Standpipe and hose systems
- Automatic sprinkler systems
- Automatic fire pumps
- Emergency power and lighting
- Voice communication systems
- Smoke control measures
- Automatic extinguishing systems
- Fire fighters elevator service
- Water supplies such as private and public hydrants
- Gas shut off valves

The audit should also include:

- Description of building construction (combustible, noncombustible, etc.)
- Building size by area
- Number of stories
- Number of supervisory staff
- Staffing number for each shift by position
- The names and telephone numbers of the building owner, manager, and alternate contact personnel, including off duty phone numbers, and the fire protection equipment service companies

Related Resources

Self-Assessment: Property and Fire Safety

Fire Protection Equipment Test Schedule

Fire Protection Impairment Guide (USA)

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