

Things You Should Know About Fire Safety

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The NFPA (National Fire Prevention Association) Fire Prevention Week is intended to focus on the importance of fire safety in the home, in schools, and at work, but workplace fire safety is also addressed by OSHA. The principal focus is on saving lives and preventing injuries due to fire.¹

Identifying Fire Safety Issues²

What should employers do to protect workers from fire hazards?

Employers should train workers about fire hazards in the workplace and about what to do in a fire emergency. If you want your workers to evacuate, you should train them on how to escape.

If you expect your workers to use firefighting equipment, you should give them appropriate equipment and train them to use the equipment safely (see Title 29 of the Code of Federal Regulations Part 1910 Subparts E and L; and Part 1926 Subparts C and F).

Portable Fire Extinguishers³

¹ Ibid.

² 150 Things You Should Know About Security, Fennelly & Perry, Elsevier, 2018, second edition

³ Ibid.

- Each workplace building should have a full complement of the proper type of fire extinguisher for the fire hazards present.
- Employees expected or anticipated to use fire extinguishers must be instructed on the hazards of fighting fire, how to properly operate the fire extinguishers available, and what procedures to follow in alerting others to the fire emergency.
- Only approved fire extinguishers are permitted to be used in workplaces, and they must be kept in good operating condition. Proper maintenance and inspection of this equipment is required of each employer.

Where the employer wishes to evacuate employees instead of having them fight small fires, there must be written emergency plans and employee training for proper evacuation. When the employer has established and implemented a written Fire Safety Policy which requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal and which includes an emergency action plan and a fire prevention plan that meet the requirements of 29 CFR 1910.38 and 29 CFR 1910.39 and when extinguishers are not available in the workplace, the employer is exempt from all requirements of this section unless a specific standard in Part 1910 requires that a portable fire extinguisher be provided.

If an employer does provide extinguishers, they must establish an educational program to familiarize their workers with the general principles of fire extinguisher use. If you expect workers to use portable fire extinguishers, you must provide hands-on training in using this equipment. For details, see 29 CFR Part 1910, Sub-part L.

Workplace Fire Safety⁴

Pursuant to the OSHA, a fire prevention plan must be:

- In writing with appropriate signatures and revision date(s)
- Kept in the workplace
- Made available to employees for review
- An employer with 10 or fewer employees may communicate the plan orally to employees.

At a minimum, a fire prevention plan must include:

- A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.
- Procedures to control accumulations of flammable and combustible waste materials.

⁴ Ibid

- Procedures for regular maintenance of safeguards installed on heat producing equipment to prevent the accidental ignition of combustible materials.
- The name or job title of employees (many times security officers) responsible for maintaining equipment to prevent or control sources of ignition or fires.
- The name or job title of employees responsible for the control of fuel source hazards.
- An employer must inform employees upon initial assignment to a job of the fire hazards to which they may be exposed. An employer must also review with each employee those parts of the fire prevention plan necessary for self-protection.⁵
- When workplace inspections are done, employers are checked for compliance with OSHA standards for fire safety as well as the NFPA 101: Life Safety Code⁶, which is the most widely used source for strategies to protect people based on building construction, protection, and occupancy with features that minimize the effects of fire and

⁵ Fire prevention plan requirements. Retrieved from: <https://www.osha.gov/SLTC/etools/evacuation/fire.html>

⁶ Codes and standards. Retrieved from: <http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards?mode=code&code=101>

related hazards. It is the only document that covers life safety in both new and existing structures.

- Employers must provide proper exits, firefighting equipment (if properly trained for use), emergency plans, and employee training to prevent fire deaths and injuries in the workplace.

What does OSHA (Occupational Safety and Health Administration) require for emergency fire exits?⁷

- Each workplace must have enough exits suitably located to enable everyone to get out of the facility quickly.
- Each workplace building must have at least two means of escape remote from each other to be used in a fire emergency.
- Fire doors must not be blocked or locked to prevent emergency use when employees are within the building. Delayed opening of fire doors is permitted when an approved alarm system is integrated into the fire door design.
- Exit routes from buildings must be clear and free of obstructions and properly marked with signs designating exits from the building.

⁷ Emergency plans. Retrieved from: <https://www.osha.gov/SLTC/etools/evacuation/fire.html>

Considerations for exit doors include the type of structure, the number of persons exposed, the fire protection available, the type of industry involved, and the height and type of construction of the building or structure. In addition, fire doors must not be blocked or locked when employees are inside. Delayed opening of fire doors, however, is permitted when an approved alarm system is integrated into the fire door design. Exit routes from buildings must be free of obstructions and properly marked with exit signs. See 29 CFR Part 1910.36 for details about all requirements.

When required, employers must develop emergency action plans that:

- Describe the routes for workers to use and procedures to follow.
- Account for all evacuated employees.
- Remain available for employee review.
- Include procedures for evacuating disabled employees.
- Address evacuation of employees who stay behind to shut down critical plant equipment.
- Include preferred means of alerting employees to a fire emergency.
- Provide for an employee alarm system throughout the workplace.
- Require an alarm system that includes voice communication or sound signals such as bells, whistles, or horns.
- Make the evacuation signal known to employees.

- Ensure emergency training and practice, practice, practice.
- Require employer review of the plan with new employees and with all employees whenever the plan is change.
- All fire prevention plans must be available for employee review.
- Housekeeping procedures for storage and cleanup of flammable materials and flammable waste must be included.
- Handling and packaging of flammable waste must be addressed. (Recycling of flammable waste such as paper is encouraged.)
- Cover procedures for controlling workplace ignition sources such as smoking, welding, and burning, if applicable.
- Provide for proper cleaning and maintenance of heat producing equipment such as burners, heat ex-changers, boilers, ovens, stoves, and fryers and require storage of flammables away from this equipment, if applicable.
- Inform workers of the potential fire hazards of their jobs and plan procedures.
- Require plan review with all new employees and with all employees whenever the plan is.

What are the rules for fixed extinguishing systems?

Fixed extinguishing systems throughout the workplace are among the most reliable firefighting tools. These systems detect fires, sound an alarm, and send

water to the fire and heat. To meet OSHA, standards employers who have these systems must:

- Substitute (temporarily) a fire watch of trained employees to respond to fire emergencies when a fire suppression system is out of service.
- Ensure that the watch is included in the fire prevention plan and the emergency action plan.
- Post signs for systems that use agents (e.g., carbon dioxide, Halon 1211) posing a serious health hazard, if applicable.
- For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. The voice phone is (202) 693–1999. See also OSHA’s website at www.osha.gov.

Emergency Evacuation Planning⁸

- Each employer needs to have a written emergency action plan for evacuation of employees that describes the routes to use and procedures to be followed by employees. Also, procedures for accounting for all evacuated employees must be part of the plan. The written plan must be available for employee review.
- Where needed, special procedures for helping physically impaired employees must be addressed in the plan; also, the plan must include

⁸ Ibid.

procedures for those employees who must remain behind temporarily to shut down critical plant equipment before they evacuate.

- The preferred means of alerting employees to a fire emergency must be part of the plan, and an employee alarm system must be available throughout the workplace complex and must be used for emergency alerting for evacuation.
- The alarm system may be voice communication or sound signals such as bells, whistles, or horns. Employees must know the evacuation signal.
- Training of all employees in what is to be done in an emergency is required. Employers must review the plan with newly assigned employees so they know correct actions in an emergency and with all employees when the plan is changed.

Fire Prevention Plan⁹

- Employers need to implement a written fire prevention plan to complement the fire evacuation plan. Stopping unwanted fires from occurring is the most efficient way to handle them. The written plan shall be available for employee review.

Fire Suppression System¹⁰

⁹ Ibid.

¹⁰ Ibid.

Properly designed and installed fixed fire suppression systems enhance fire safety in the workplace. Automatic sprinkler systems throughout the workplace are among the most reliable firefighting means. The fire sprinkler system detects the fire, sounds an alarm, and puts the water where the fire and heat are located.

Automatic fire suppression systems require proper maintenance to keep them in serviceable condition. When it is necessary to take a fire suppression system out of service while business continues, the employer must temporarily substitute a fire watch of trained employees standing by to respond quickly to any fire emergency in the normally protected area. The fire watch must interface with the employers' fire prevention plan and emergency action plan.

Signs must be posted about areas protected by total flooding fire suppression systems, which use agents that are a serious health hazard such as carbon dioxide, Halon 1211, etc. Such automatic systems must be equipped with area pre-discharge alarm systems to warn employees of the impending discharge of the system and allow time to evacuate the area.

There must be an emergency action plan in place to provide for the safe evacuation of employees from within the protected area. Such plans are to be part of the overall evacuation plan for the workplace. Fire Safety is the

responsibility of everyone in the workplace and it is critical that each employee knows what to do if there is a fire emergency. Training is a key component of any plan.

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