

Department: _____ Workplace Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Instructor/Supervisor: _____

Topic M38: Fire Extinguisher Use

Introduction: OSHA requires that fire prevention and protection be provided at the workplace. OSHA regulations state that “Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer shall also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage (beginning) fire fighting. The employer shall provide the education required upon initial employment and at least annually thereafter.”



Training employees to prevent fires is an essential first step in fire protection and OSHA requires that workers be informed about fire hazards found in their workplace. Regular inspections and evaluations must be conducted in order to keep workers apprised of changes in the fire hazard potential at the workplace. Look for these fire hazards in your workplace:

- **Electrical fire hazards** — Defective wiring is a major cause of industrial fires. Employees should watch for worn extension cords, exposed wiring, and broken power tools or equipment. Avoid overloading circuits and report all defective wiring or equipment.
- **Flammable liquids** — Solvents, paint, paint thinners, gasoline, alcohol, acetone, and other flammable liquids ignite with the slightest spark or even static electricity. Care should be taken to store these substances in approved containers in well-ventilated areas designated for their storage.
- **Hot work** — Welding and cutting operations generate heat, sparks, and hot slag. Follow the precautions listed on hot-work permits, including using fire-resistant covers, spark shields, and fire watches. If possible, move flammable and combustible materials away from the hot-work area.
- **Smoking** — If smoking is allowed in certain areas, make sure that all smoking rules are posted and enforced.
- **Poor housekeeping** — Oily rags, paper, sawdust, cartons, and trash lying around are a recipe for disaster. Oily rags should be placed into safety cans. Keep work areas clean and un-cluttered, particularly around hot machinery or equipment that creates heat.



What to do in case of a fire —First and foremost ensure your own safety! Ask yourself; “Do I know how to extinguish a fire?”. You must also know what to do if your efforts fail. When seeing smoke or fire one should use good judgment before deciding to extinguish the blaze. Ask these questions: Is the fire limited in size and spread? Will you have an escape route if something goes wrong? Do you know the location of the nearest fire extinguisher? If you are confident the fire is controllable and your safety ensured, attempt to put it out. If the answer to any of these questions is no, evacuate the area.

Communicate — Once you have decided to extinguish the blaze, make every reasonable attempt to tell at least one other person what you are doing. This person should report your activity and alert the appropriate fire department as soon as possible.



The appropriate fire extinguisher must be selected. Extinguisher **classification** means the letter classification given an extinguisher to designate the class or classes of fire on which an extinguisher will be effective. Extinguisher **rating** means the numerical rating given to an extinguisher which indicates the extinguishing potential of the unit based on standardized tests. Some extinguishers are rated for more than one class and some are for only one type of fire. Ensure the extinguisher being used is rated for the fire being extinguished.



- **Class – A - fires** — involve ordinary combustible materials such as paper, wood, cloth, and some rubber and plastic materials.
- **Class – B - fires** — involve flammable or combustible liquids, flammable gases, greases, and some rubber and plastic materials.
- **Class – C - fires** — involve energized electrical equipment which requires the use of electrically nonconductive extinguishing media.
- **Class – D - fires** — involve combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium.

Hold the extinguisher and stand about six feet from the fire. Point the nozzle toward the base of the fire and get ready to release the extinguishing agent. The technique to remember for using an extinguisher is published by the **National Fire Protection Association (NFPA)**. It is known as the P.A.S.S. Technique (Pull, Aim, Squeeze, and Sweep) and is as follows: ① **Pull** out the pin that secures the handle. ② **Aim** the extinguisher nozzle at the base of the fire. ③ **Squeeze** the handle or triggering mechanism. ④ **Sweep** the extinguisher agent stream from side to side across the base of the fire until it is completely out. Be alert for re-ignition. If this happens, douse the fire with the agent until the extinguisher is empty. Once the fire is out, carefully back away from the scene. Carefully observe and see if the fire re-ignites. If the blaze cannot be extinguished or it recurs repeatedly, vacate the area immediately.

Conclusion: Keep firefighting equipment in proper working condition. Inspect all portable fire extinguishers monthly and make sure they are charged and ready for use. Many states require fire extinguishers to be inspected and serviced by a trained professional annually. Keep the appropriate fire extinguishers on hand for the fire hazards found in a particular workplace and ensure workers are trained to determine which extinguishers to use for different types of fires. Follow these guidelines for safe fire extinguisher use.

Employee Safety Suggestions and Specific Workplace Hazards: _____

Personnel Safety Violations: _____

Employee Attendance: (Names or signatures of personnel who are attending this meeting)

Date: ____/____/____ Time: ____:____ AM / PM

ANSWERS TO EMPLOYEE QUIZ: 1) C, 2) A, 3) D, 4) C, 5) D, 6) A

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.