

# **Fire Extinguishers**

## **(29CFR 1910.157)**

## **Fire Extinguishers**

There are four possible fire extinguisher situations, which may arise in the workplace.

- a. No fire extinguisher in the workplace.
- b. Fire extinguisher are located in the workplace, no employee is expected to use them.
- c. Fire extinguisher to be used by designated employees only.
- d. Fire extinguisher to be used by all employees.

The requirements for fire extinguishers depends on which of these categories applies. Quabbin, Inc. has trained all employees in the proper use of Fire Extinguishers. Quabbin has both an Emergency Action Plan and a Fire Prevention Plan, and, the plans calls for employees to be trained in the proper use of fire extinguishers as required by OSHA. Employees will be trained on the hazards of fighting fires and other various emergencies. Employees will only fight fires if they feel that they are safe to do so, otherwise, Quabbin's management recommends **total evacuation** of employees from the building as per the Emergency Action Plan.

## Fire Extinguisher Requirements

Quabbin's Emergency Action Plan calls for all employees to evacuate the building in case of fire, therefore, all of the requirements, Selection and Distribution, Inspection, Maintenance Testing, and Training and Education requirements apply.

### Selection and Distribution

The fire extinguisher selected must be appropriate for the particular type and size of fire anticipated. In general, there are four classes of fire extinguisher (A, B, C, D) available either separately or in combination. Often a combination extinguisher is chosen if there may be more than one type of fire in the area. All of the fire extinguishers at Quabbin are the ABC type. The four classes and required distribution are summarized as follows:

<u>Class</u>	<u>Use</u>	<u>Travel Distance to get to Extinguisher</u>
Class A	Combustibles such as wood/paper	No more than 75 feet
Class B	Flammable Liquids	No more than 50 feet
Class C	Electrical fires	Generally no more than 50 feet
Class D	Combustible materials (flakes, shavings)	No more than 75 feet

## **Fire Prevention Equipment**

Quabbin's management or designated personnel will be responsible for maintaining the fire prevention or control equipment. Quabbin's management will also insure that its portable Class A, B & C dry chemical fire extinguishers are installed, inspected, maintained and tested in accordance with the National Fire Protection Association Standard 10 "Portable Fire Extinguishers" as stated below:

### **Installation**

- a. Fire extinguishers should be mounted in a clean dry area, accessible to possible fire hazards and preferably near an exit.
- b. Fire extinguishers should be mounted so that the top is from 3-1/2 to 5 feet above the floor and out of reach of small children.
- c. The fire extinguisher mounted using the mounting bracket furnished with it and must be fastened to a solid surface using a strong screw or fastener.

### **Inspection**

- a. All portable fire extinguishers should be visually inspected monthly, checking for any possible damage, corrosion, leakage or obstructions in the discharge outlet.
- b. The tamper seal should be unbroken.
- c. The Fire extinguisher should be cleaned so that the instructions on the label are always clearly visible.
- d. Fire extinguisher pressure gauges should be checked. The indicator may vary slightly due to temperature, but should always be in the GREEN area if it is fully pressurized.

## **Maintenance**

- a. Annual maintenance is a more complete inspection of the fire extinguisher and will be completed by professionals. Records of the annual maintenance must be maintained.
- b. Every 12 years dry chemical fire extinguishers are required to be hydrostatically tested. Hydrostatic testing requires that the fire extinguisher be emptied and subject to thorough examination of mechanical parts, extinguishing agent and expelling means and will be completed by professionals.
- c. Fire extinguishers should be recharged professionally immediately after any use.

## **Training and Education**

Any employee who will use a fire extinguisher must be trained on the use of fire extinguisher and hazards involved with firefighting initially and annually thereafter.

Quabbin's training program will consist of the following:

- a. All employees will be required to watch a brief fire prevention video once per year during one of Quabbin's monthly Safety Meetings or independently on line.
- b. All employees will be required to participate in hands on fire extinguisher training.
- c. All employees will be required to participate in a fire drill a minimum of once per year.
- d. All employees will be required to participate in the "Fire Extinguisher Use" Break Room Safety Meeting a minimum of once per year.

## Fire Extinguisher Use

**Introduction:** OSHA requires that fire prevention and protection be provided at the workplace. OSHA regulations state “Where the employer has 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:

- a. **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.
- b. **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.
- c. **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.
- d. **Smoking** – If smoking is allowed in certain areas, make sure that all smoking rules are posted and enforced. Quabbin’s management does not allow any smoking within the facilities at any time. All smoking must be done outside in the designated areas and all trash and smoking items must be placed in an appropriate waste container.
- e. **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 three 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.

**Appropriate fire extinguisher:** The correct fire extinguisher must be selected for the type of fire you are trying to extinguish. 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.

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

**Extinguisher Use:** 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 P.A.S.S. The technique (Pull, Aim, Squeeze, and Sweep) is as follows:

- a. **Pull** the pin that secures the handle.
- b. **Aim** the extinguisher nozzle at the base of the fire.
- c. **Squeeze** the handle or triggering mechanism.
- d. **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 it happens, douse the fire with 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 fire-fighting 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.

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Mark LeBoeuf  
President  
Quabbin, Inc.



**Employee Training**  
**ATTENDANCE SHEET**

On \_\_\_\_\_, the following Quabbin employees were trained on Fire Extinguisher Use and Safety Program for Quabbin, Inc.

<b><u>Name</u></b>	<b><u>Job Title</u></b>	<b><u>Employee's Signature</u></b>
Sherry Calcari	Secretary	_____
Kevin Cromwell	Machinist	_____
Daniel Frank	Powder Coater	_____
William Jones	Die Cutter	_____
Travis LeBlanc	Die Cutter	_____
Thomas LeBoeuf	VP Manufacturing	_____
Mark LeBoeuf	President	_____
Kevin Purdie	Machinist	_____
Cynthia Richards	Machinist	_____
David Scarfe	Sales/Marketing	_____
Thomas Ward	Powder Coater /Die Cutter	_____

A copy of this attendance sheet will be added to each employee's personnel file.