

Burns Industrial Equipment Inc
Portable Fire Extinguisher
Program

Effective Date:
Revision #:



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Prepared by: _____ Date: _____ Approved by: _____ Date: _____

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Portable Fire Extinguisher Program

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Reference Standard

Occupational Safety and Health Administration: Portable Fire Extinguishers 29 CFR 1910.157.

Purpose

This procedure establishes minimum standards for the placement, use, maintenance, and testing of portable fire extinguishers. Life safety will always be considered as the primary goal when dealing with emergency response activities including the use of portable fire extinguishers.

Scope

This procedure applies to all of our company employees, all contractors and vendors performing work on company property, and all other individuals who are visiting or have business with our company.

Responsibilities

- Management is responsible for development and review of this program. Management is also responsible for appropriate employee training.
- Management and supervisors are responsible for enforcement of this program.
- Employees shall comply with all procedures outlined in this policy.
- Contractors and vendors shall comply with all procedures outlined in this policy.

Definitions

Agent: The contents of a fire extinguisher that causes extinguishment upon application to the fire. Agent types include:

- Water and water based foam
- Ordinary dry chemical (sodium bicarbonate base) and Purple K (potassium bicarbonate base)
- Multi-purpose dry chemical (monoammonium phosphate base)
- Inert gas (carbon dioxide)
- Halon
- Halon Replacement
- Dry Powder-various dry compounds for fighting combustible metal fires

Class: The Class of fire indicates the fuel that is burning. Class is useful in labeling fire extinguishers for use since all agents are not effective on all fires. Fire Classes are:

- Class A, ordinary combustibles (wood, paper, etc.)
- Class B, flammable and combustible liquids and gasses
- Class C, energized electrical equipment
- Class D, combustible metals
- Class K, cooking oils and fats

Contractor: A non-company employee being paid to perform work in our facility.

Incipient Stage Fire: The beginning or initial stage of a fire. Generally, the heat and smoke production and fire growth are manageable. If an employee believes that a fire is too big, too smoky or too hot, the fire is **not** an incipient stage fire.

PASS: An acronym that describes the main steps in fire extinguisher operation: **P**ull, **A**im, **S**queeze, **S**weep.

Portable Fire Extinguisher: A unit designed for fire extinguishment, that contains a fire extinguishing agent, expelled by pressure or a manual pump, and that is capable of being carried by hand. (Note: Class D agent can be stored and applied with a scoop or shovel and can be stored in a container other than an extinguisher.)

UL: Underwriters Laboratories, a testing and certification laboratory.

Vendor: A non-company employee being paid to perform a service in our facility.

Wheeled Fire Extinguisher: A fire extinguisher that is heavy enough to require a wheeled carriage. Size ranges are: Dry chemical and dry powder 50lbs. to 350lbs., Foam 33 gallons, carbon dioxide 50lbs-100lbs, Halon and replacements (50lbs and greater).

Procedure

Fire Extinguisher Selection

Fire extinguishers will be selected based upon the hazard(s) present in the area and the expected types of fires that could result. Both the type and capacity of the fire extinguisher will be determined by the potential hazard. All fire extinguishers provided in our facility will be UL approved.

Selection Guide:

Fire Hazard Class	Agent Selection
Class A	1. Water 2. Foam 3. Multi purpose dry chemical 4. Halon 5. Halon replacement
Class B	1. Ordinary dry/Purple K chemical 2. Multi-purpose dry chemical 3. Halon 4. Halon substitutes 5. Carbon dioxide
Class C	1. Ordinary dry/Purple K chemical 2. Multi purpose dry chemical 3. Halon 4. Halon substitutes 5. Carbon dioxide
Class D	Dry powder selected for the specific combustible metal
Class K	Wet chemical (potassium-based liquids)

Placement

Placement of fire extinguishers will conform with the following guidelines:

1. Travel Distance:
2. Hazard: High hazard areas will have a fire extinguisher placed closer than the maximum travel distances.
3. Ease of access: Areas that are difficult to access will have a fire extinguisher placed closer so that response to a fire will not be delayed.
4. Permanent location: All fire extinguishers in our facility will have a permanent location consisting of a wall mount, a fire extinguisher cabinet, or a vehicle bracket to assure access.
5. Damage: Extinguishers will be located to minimize the possibility of damage and being obstructed by traffic or work activities in the area.
6. Marking: All fire extinguisher locations will be conspicuously marked with signs or other indicators.

Placement Guide:

Fire Hazard Class	Travel Distance
Class A	75 feet or less
Class B	50 feet or less
Class C	Based on Class A and B extinguisher placement, but close to the hazard
Class D	75 feet or less
Class K	Close to the cooking surface

Care and Maintenance

1. Fire extinguishers will be kept unobstructed and in clear view at all times.
2. Fire extinguishers will be inspected on a monthly schedule by trained facility personnel and a written record of the inspection will be maintained. The inspection will include:
 - Verify that the extinguisher is in the proper location
 - Physical condition
 - Pressure gage within operable range (if so equipped)
 - Nozzle is unobstructed
 - Lift the extinguisher to verify it is not too light (indicating a loss of contents)
3. An annual inspection will be performed by a certified fire extinguisher contractor and records of service will be maintained.

4. After any fire extinguisher is used, the unit will be removed from service until it is inspected and recharged by the contractor.
5. If a fire extinguisher is damaged, involved in an incident where damage could result, or if the extinguisher shows signs of corrosion, it will be removed from service until it is inspected and recharged by the contractor.
6. All fire extinguishers will be labeled with the class of fire(s) that they are designed to fight and with the operating instructions.
7. All stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years.
8. All portable extinguishers shall be hydrostatically tested at the intervals listed in the following table:

Type of Extinguisher	Test Interval (Years)
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5
Wetting agent	5
Foam (stainless steel shell)	5
Aqueous Film Forming foam (AFFF)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild steel shells	12

Exceptions to hydrostatic testing requirement where more frequent testing may be required:

- When the cylinder or shell threads are damaged;
- When there is corrosion that has caused pitting, including corrosion under removable name plate assemblies;
- When the extinguisher has been burned in a fire; or
- When a calcium chloride extinguishing agent has been used in a stainless steel shell.

Fire Extinguisher Use

1. *There is nothing in our facility that is worth a human life.* No employee is required to use a fire extinguisher. Operation of a fire extinguisher is a voluntary action.
2. Only trained personnel are authorized to use a portable fire extinguisher.

3. Fire extinguishers will only be used on incipient stage fires.
4. The steps in fire extinguisher use are:
 - Alert employees at immediate risk from the fire
 - Activate the facility fire alarm
 - Use the PASS acronym for operation
 - All fire extinguisher use will be reported to the program administrator
5. Operational safety rules for fire extinguisher use are:
 - Fight only incipient stage fires
 - Use a fire extinguisher that is approved for the class of fire
 - Always keep an exit path open behind you
 - Stay low to avoid heat and smoke
 - Do not turn your back on a fire, even after extinguishment
 - Avoid breathing smoke-ventilate the area after extinguishment

Training

1. Only trained and authorized employees are allowed to use fire extinguishers in our facility.
2. Training will be conducted at the time that the employee is authorized to use fire extinguishers and familiar with the hazards involved with incipient stage firefighting. Such training will be repeated annually for all authorized personnel.
3. Employees who are not authorized to use fire extinguishers will be advised that their only duties in a fire are: notification and evacuation.
4. Training will consist of classroom training supplemented by hands on training where necessary. In all cases, employee safety will be stressed over property conservation. Additional training will be provided for any personnel who are assigned to operate wheeled fire extinguishers.

Revision History Record:

Revision Number	Section	Revised By	Description
0	NA	NA	Original document.

PLAYING IT **SAFE**

Be safe and healthy on the job at Burns Industrial Equipment Inc with these helpful tips provided by Henderson Brothers.



Fire Extinguisher Safety

Properly Fighting Small Fires

Fire extinguishers are designed to fight small fires in their early stages when the fire presents a relatively small hazard to the operator.

An extinguisher can be used in what is known as the incipient stage, when the fire is:

- Small
- Slow growing
- Minimal smoke
- Minimal heat

If a fire is too large, if there is too much smoke or if you are too frightened, evacuate immediately.

PASS

To operate a fire extinguisher, we use this word PASS. Each letter represents one of the operations:

P=Pull

- The safety pin is usually held in place by a plastic seal, it will pull off
- Do not push down on the operating lever while pulling the pin, it won't come out

A=Aim

- Aim at the base of the fire, the lowest flame closest to you
- The base of the fire will recede from you as you use the extinguisher, so you must adjust your aim

S=Squeeze

- The operating lever is above the carrying handle. The operating lever opens the valve when you squeeze it down. When you let go, the valve closes and the discharge stops

S=Sweep

- Sweep the nozzle by moving your arm at the elbow
- Direct the discharge to cover the entire width of the base of the fire

Know Your A, B, Cs

Using the wrong fire extinguisher can result in more damage than the fire itself. All extinguishers have nameplates identifying their usage instructions, as outlined below.

Class A Fires

- These fires include wood, paper, trash and other items that produce glowing embers as they burn.
- Only use a Class A extinguisher for these items and never use one on a gas or electrical fire.

Class B Fires

- These include flammable liquid and gas fires (gasoline, paint thinners, solvents, grease and acetylene).
- Use a Class B extinguisher only to fight these fires.

Class C Fires

- These include energized electrical equipment fires.
- Use a Class C extinguisher only to fight these fires.

There are also extinguishers which can be used for all types of fires known as a Class ABC extinguisher.



Know When to Go

Never feel like you have to stay and fight a fire. If at any point while using an extinguisher you become uncomfortable with the situation or feel like your safety is threatened, get out immediately. Your life is worth more than any property.

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PORTABLE FIRE EXTINGUISHER PRESENTATION

INSTRUCTOR NOTES

The following provides a useful preparation outline for use by trainers presenting the Portable Fire Extinguisher Program training presentation to employees.

Training Objectives

- Review the rules and procedure for operation of fire extinguishers
- Train employees to feel confident in making a decision to use a fire extinguisher or to evacuate in the event of an emergency

Before Training

- Read the OSHA standard and the model Fire Extinguisher Training program
- The OSHA standard does not require “hands on” fire extinguisher training with live fire. However, this can be a valuable component of training, and the trainer should evaluate the likelihood of fire frequency and severity to determine if “hands on” training should be included
- Have examples of the types of fire extinguishers used in the facility to use as visual training props
- If you have access to an empty fire extinguisher, allow the student to use it for practicing the PASS operational method

Introduction for Training

- Begin by stressing the overall importance of safety in your facility
- Stress the following concept:
 - ***No employee is ever required to use a fire extinguisher. Before using a fire extinguisher, you must always consider your safety. If a fire is too large, if there is too much smoke or if you are too frightened, DO NOT USE THE FIRE EXTINGUISHER: EVACUATE!***
- As a ground breaker, ask your employees what prior experiences they have had with fire extinguishers or fire extinguisher training.

General Guidelines

- Stress the importance of the bullet points on the slides that accompany these materials
- Stress the importance of the individual employee being committed to his/her own safety
- Be sure to be open to questions or comments
- Teaching safety is more important than teaching technical content with this topic

Safety

- Fire extinguishers are only to be used on incipient stage fires. These are small fires that are growing slowly
- Stress the concept that people are more important than property
- Repeat that employees are expected to make a conscious choice regarding use of fire extinguishers and that the choice must always place personal safety above property conservation
- Review the operational safety steps with employees and be sure that they are understood

FIRE EXTINGUISHER OPERATION QUIZ

Name: _____ Date: _____ Score: _____

Place a check mark on the line with the best answer for each of these 10 questions:

1. The most important consideration when using a fire extinguisher is:
a. ___ Your safety
b. ___ The age of the fire extinguisher
2. It is important to know the class of the fire so that:
a. ___ You can pass this test
b. ___ You can select the proper type of fire extinguisher
3. The word that helps us remember how to operate a fire extinguisher is:
a. ___ PASS
b. ___ WHO
4. P stands for:
a. ___ Pick
b. ___ Pull
5. A stands for:
a. ___ Angle
b. ___ Aim
6. S (the first S) stands for:
a. ___ Slow
b. ___ Squeeze
7. S (the second S) stands for:
a. ___ Sweep
b. ___ Slow
8. When using a fire extinguisher you must always have _____ behind you:
a. ___ An exit
b. ___ An ax
9. Before using a fire extinguisher:
a. ___ Put gloves on
b. ___ Alert other people at risk and call 911
10. Never fight a fire if:
a. ___ Your instincts tell you not to
b. ___ It is time to go home

