

## **Instructor Guide**

### **Topic:**

Fire Extinguisher Usage

### **Time Required:**

One Hour

### **Materials:**

NFPA Brochures, Video Tape, PowerPoint presentation.

### **Reference:**

National Fire Protection Association

## **PREPARATION**

### **Objective:**

The student will demonstrate a basic understanding of the proper type, usage, and limitations of a fire extinguisher.

## **INSTRUCTIONAL GUIDE**

### **I. What is Fire**

- A. Think of a triangle- fuel, heat source, and air.
- B. Remove any one of these, and out goes the fire.
- C. Fire extinguishers work by taking away one or more of the elements of the fire triangle.

### **II. Classification of Fuels**

#### A. Class A

1. Wood, paper, plastic, cloth, trash, and rubber.
2. Solid combustible materials that are not metals.

#### B. Class B

1. Flammable liquids: gasoline, oil, grease, and acetone.
2. Any non-metal in a liquid state, on fire.

#### C. Class C

1. Electrical: energized electrical equipment.
2. If it's "plugged in"- it would be considered a Class C fire.

#### D. Class D

1. Metals: potassium, sodium, aluminum, and magnesium
2. Unless you are in a laboratory or industry that involves these materials, it is unlikely you'll have to deal with a Class D fire.
3. It takes special extinguishing agents (Metal-X, foam) to extinguish such a fire.

### **III. Pictograph Labels**

- A. Most extinguishers will have a pictograph label telling you which fuels the extinguisher is designed to fight.
- B. The trend is moving from color-coded symbols to pictographs.

#### **IV. Fire Extinguisher Ratings**

##### **A. Class A Extinguishers**

1. Will put out fire in ordinary combustibles
2. The numerical ratings refers to the amount of water it holds and amount of fire it will extinguish.

##### **B. Class B Extinguishers**

1. Should be used on flammable liquids.
2. The rating states the approximate number of square feet of a flammable liquid fire that a non-expert person can extinguish.

##### **C. Class C Extinguishers**

1. Suitable for use on electrically energized fires.
2. Do not have a numerical rating.
3. The presence of the letter "C" indicates that the extinguishing agent is non-conductive.

##### **D. Class D Extinguishers**

1. Designed for use on flammable metals and are often specific for the type of metal in question.
2. No picture designator.
3. Generally have no rating
4. Not given a multi-purpose rating

#### **V. Rules For Fighting Fires**

- A. Fires can be very dangerous so do not endanger yourself or others when attempting to put one out.
- B. Assist any person in immediate danger if it can be done without risk to you.
- C. Activate the building fire alarm system or notify the fire department by dialing 911 or designate someone else to do so.
  1. Never fight a fire if-
    - a. You don't know what's burning.
    - b. The fire is spreading rapidly beyond the spot where it started.
    - c. You don't have adequate or appropriate equipment.
    - d. You might inhale toxic smoke.
    - e. Your instincts tell you not to.

#### **VI. Final Rule**

- A. Always position yourself with an exit or means of escape at your back before you attempt to use an extinguisher to put out a fire.

#### **VII. Remember PASS**

- A. P- Pull the pin.
- B. A- Aim the nozzle.
- C. S- Squeeze the trigger.
- D. S- Sweep the nozzle side to side.

#### **VIII. Placement and Maintenance**

- A. Place and maintain it to manufacturer's recommendation.
- B. Have it visible.
- C. Check it monthly.
  1. It is where it should be.
  2. It is fully charged and not leaking by checking the pressure dial.
  3. It is not damaged in any way.
  4. The hose is not clogged, cut, or loosened.