The safety of yourself and others is always the first priority. In the event of a fire, your focus should be on evacuating to a safe place and activating the closest fire alarm pull station on the way out. If the fire is still in the early ignition stage (typically no larger than a small waste basket) and you have completed the CMU Fire Extinguisher Training, you may decide to attempt to extinguish the fire before evacuating.

The following guide can be used as a review of the 5 classes of fire, the available types of fire extinguishers and the how to effectively operate a fire extinguisher.

**Classification of Fires**

- **Class A Fires**
  Common combustibles such as wood, paper and fabric.

- **Class B Fires**
  Flammable liquids and gases such as gasoline, oils, alcohol and propane.

- **Class C Fires**
  Energized electrical equipment such as appliances, batteries, electrical panels and transformers.

- **Class D Fires**
  Combustible metals such as lithium, magnesium, sodium and potassium.

- **Class K Fires**
  Cooking media such as oils, fats and grease.
Types of Fire Extinguishers

Air Pressurized Water

- **Class of Fire**: Class A Only
- **Extinguishing Agent**: Water
- **Means of Extinguishment**: Cooling and heat absorption
- **Effective Range**: 30 feet
- **Discharge Time**: 30 - 50 Seconds

Dry Chemical (Multipurpose)

- **Class of Fire**: Class ABC
- **Extinguishing Agent**: Monoammonium Phosphate
- **Means of Extinguishment**: Breaking of the chemical chain reaction
- **Effective Range**: 10 feet
- **Discharge Time**: 10 - 30 seconds

Dry Chemical (Regular)

- **Class of Fire**: Class BC
- **Extinguishing Agent**: Sodium Bicarbonate/Potassium Bicarbonate
- **Means of Extinguishment**: Breaking of the chemical chain reaction
- **Effective Range**: 10 feet
- **Discharge Time**: 10 - 30 seconds
Carbon Dioxide (CO2)

Class of Fire
Class BC

Extinguishing Agent
Carbon Dioxide (CO2)

Means of Extinguishment
Oxygen displacement

Effective Range
5 feet
Discharge Time
10 – 20 seconds

Halogenated Agent (Clean Agent)

Class of Fire
Class ABC / BC

Extinguishing Agent
Combinations of Halogens, Carbon & Hydrogen

Means of Extinguishment
Breaking of the chemical chain reaction

Effective Range
10 feet
Discharge Time
10 – 15 seconds

Dry Powder

Class of Fire
Class D only

Extinguishing Agent
Powdered Graphite, Sodium Chloride or Copper

Means of Extinguishment
Heat absorption through an occlusive crust

Effective Range
5 feet
Discharge Time
20 seconds
Best Practices

- Always activate the closest manual fire alarm pull station before attempting to extinguish a fire. This will alert the fire department to respond to your location and allow the occupants of the building to begin the evacuation process. It is also best practice to have someone place a call directly to 911 to ensure the fire department is on the way.

- When choosing a fire extinguisher, select one that is classified for use on the type of fire that is involved. For example, you wouldn't want to select a water fire extinguisher (Class A fires only) for use on an electrical fire (Class C fires).

- Once you have selected the appropriate fire extinguisher, approach the fire from uphill and upwind, as applicable.

- As you approach the fire, utilize the P.A.S.S. method of operation, beginning about 10 feet away.
  
  \[ \text{P} = \text{PULL THE PIN} \]
  \[ \text{A} = \text{AIM THE NOZZLE AT THE BASE OF THE FIRE} \]
  \[ \text{S} = \text{SQUEEZE THE DISCHARGE LEVER} \]
  \[ \text{S} = \text{SWEEP SIDE TO SIDE} \]

- Pay attention to your surroundings at all times and never let the fire get between you and an exit.

Safety concern, training request or other inquiry? Reach out to the Environmental Health and Safety Department today!

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