Fire Extinguisher Safety for Construction: Using Extinguishers

To effectively put out small fires, you need to CHOOSE and USE the right extinguishers.

How Fire Extinguishers Work
For fire to exist, the following elements must be present at the same time:

- Heat
- Oxygen
- Fuel
- Chemical chain reaction

Fire extinguishers expel extinguishing agents when you press down on their handles.

The extinguishing agent will do one of the following:

- Cool burning fuel
- Displace or remove oxygen
- Stop the chemical reaction so a fire cannot continue to burn

Fire Extinguisher Types
Using the wrong extinguisher can be ineffective and may make the fire worse or cause new hazards.

- **Class A** fires involve ordinary combustibles such as paper, cloth, cardboard and wood. They require extinguishers labeled A, such as air-pressurized water and foam extinguishers. While portable fire extinguishers are the primary focus of this course, it's worth noting that water hoses and water barrel and bucket approaches may also qualify as Class A means to extinguish site fires.
- **Class B** fires involve flammable liquids such as gasoline, oil, grease, paint, lacquer and solvents. Carbon dioxide, or CO2, extinguishers are an example of class B and C extinguishers.
- **Class C** fires involve electrical equipment such as wiring, fuse boxes, energized electronics, motors, appliances, computers and other electrical sources. Halogen or clean agent extinguishers are an example of class B and C extinguishers.
- **Class D** combustible metals – such as aluminum, magnesium, titanium and sodium – require special extinguishers labeled D, such as dry powder extinguishers.
- **Class K** fires involve cooking oils and greases such as animal fats and vegetable fats. They require a wet chemical extinguisher labeled K. Class K extinguishers are commonly mounted in or near a commercial kitchen and discharge automatically.

Heat and embers from Class A combustibles, such as scrap wood, sawdust and similar materials, can be difficult to extinguish completely. Just as campfires often re-ignite, these jobsite combustibles may do the same. Drench and monitor extinguished materials until re-ignition is no longer a threat.

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Fire-Fighting Overview

IMPORTANT: To effectively use fire extinguishers, you need additional training and hands-on practice. This is an OVERVIEW of best practices for fighting fires.

1. Alert others of the fire by whatever accessible means you can and ask someone to notify the appropriate people, such as the fire department and site security.
2. Evacuate the immediate area.
3. Notify others of your intent.
4. Identify a safe evacuation path.
5. Choose the appropriate type of fire extinguisher.
6. Stand a safe distance from the flames (check extinguisher label).
7. Discharge the extinguisher using the PASS (pull, aim, squeeze and sweep) technique.
8. Back away from the extinguished fire.

If the fire becomes too dangerous or you are unable to put it out, evacuate immediately.

PASS Method

To use the PASS method:

1. PULL the pin.
2. AIM toward the base of the fire.
3. SQUEEZE the handle.
4. SWEEP from side to side at the base of the fire.

Watch the area. If the fire re-ignites, repeat the aim, squeeze and sweep steps.

Best Practices

Be sure to:

- Seek hands-on training in addition to the online course and this job aid
- Keep the right class of extinguisher for the materials in each area
- Make sure extinguishers are accessible and easy to locate
- Always maintain clear access to fire extinguishers and other emergency equipment
- Don’t stack materials in front of extinguishers
- Document periodic extinguisher inspections
- Inspect the pin, gauge and nozzle for damage, obstructions or evidence of tampering
- NEVER re-mount a used extinguisher

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