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|  DALHOUSIE UNIVERSITY Facilities Management Fire Extinguishers and Fighting Fires Safe Work Instructions | <i>Policy Sponsor:</i> Assistant Vice President Facilities Management | <i>Approval Date:</i> February 2010 |
| | <i>Responsible Unit:</i> Facilities Management | <i>Revisions:</i> |
| Service: All Services | Shop: All Shops | |
| Hazards Identified: Fire, extreme heat, smoke, toxic fumes, noise, falling objects, uneven terrain, debris, | | |
| Personal Protective Equipment Required: | | |
| Training Required: Before using this equipment employees must be trained by a competent person in its proper use and care and in the proper use and maintenance of all required PPE. | | |

These safe work practices must be followed at all times and are to be reviewed annually to ensure they are adequate and accurate.

General Precautions

1. REMEMBER: You are not required to fight a fire.
2. DO NOT fight a fire if you have the slightest doubt about your ability to control the situation.
3. Always remember to approach a fire carefully, fires are dangerous and life threatening.
4. If you can not extinguish the fire, leave immediately.
5. Close all doors as you leave the area but DO NOT lock any door.

6. Leave the building and stay in the area (in a safe place) to provide information to Security and / or the fire department.

Before deciding to fight a fire you should be certain that:

1. The building is being evacuated (the fire alarm has been pulled or someone is evacuating the building).
2. Security Services have been called (Dial 6400).
3. You use the “Buddy System” if possible so the second person can back you up and keep an eye on your exit while you are fighting the fire.
4. The fire is small and not spreading; fires can double in size in two to three minutes.
5. You have the proper fire extinguisher for what is burning. (See below.)
6. The fire won’t block your exit if you can’t control it. A good way to ensure this is to keep the exit at your back.
7. The route to your exit is free of debris.
8. You know that you have the proper extinguisher and that it works.
9. You know how to use the fire extinguisher

Types of Fires or Classifications of Fuels

1. Class A - wood, paper, cloth, trash, plastics –solids that are not metals.
2. Class B - flammable liquids – gasoline, oil grease, acetone. Includes flammable gases.
3. Class C - electrical – energized electrical equipment. As long as it is “plugged in.”
4. Class D – combustible metals such as potassium, sodium, aluminum, titanium, magnesium.

Choosing the Correct Type of Fire Extinguishers

1. Make sure that you know the types of fires that can occur in your workplace.

2. Make sure that you have the proper type of fire extinguisher to fight the types of fires that you may confront.
3. Make sure that each fire extinguisher has a rating sufficient to fight the types of fires you will encounter.

Common Types of Fire Extinguishers

1. **Water Extinguishers** or APW (air pressurized water) extinguishers are only suitable for Class A fires. **Never use a water extinguisher on grease fires; the water will help the flames to spread.**
2. **Dry Chemical** extinguishers come in a variety of types and suitable for for a combination of Class A, B and C fires. These are filled with foam or powder and pressurized nitrogen.
 - a. BC - This is the regular type of dry chemical extinguisher. It is filled with sodium bicarbonate or potassium bicarbonate. The BC variety leaves a mildly corrosive residue which must be cleaned immediately to prevent any damage to materials.
 - b. ABC - This is the multipurpose dry chemical extinguisher. The ABC type is filled with mono ammonium phosphate, a yellow powder that leaves a sticky residue that may be damaging to electrical appliances such as a computer.
3. **Carbon Dioxide** extinguishers are used for Class B and C fires. They contain carbon dioxide and a non flammable gas and are highly pressurized. Carbon dioxide extinguishers are particularly useful around electrical equipment, including computers, because they don't leave a harmful residue.

Be sure to read the instructions on your fire extinguisher - different fire extinguishers recommend operating them from different distances. There is not enough time to read instructions when a fire occurs.

Fighting the Fire

Remember the following when using a fire extinguisher:

P A S S

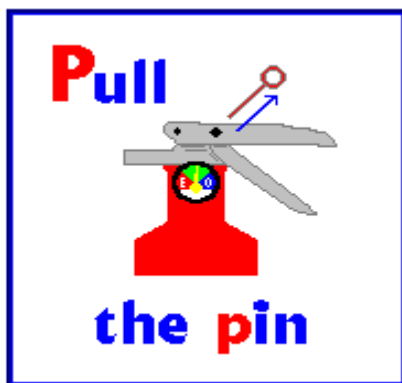
Pull the Pin at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.

Aim at the base of the fire, not the flames. This is important - in order to put out the fire, you must extinguish the fuel.

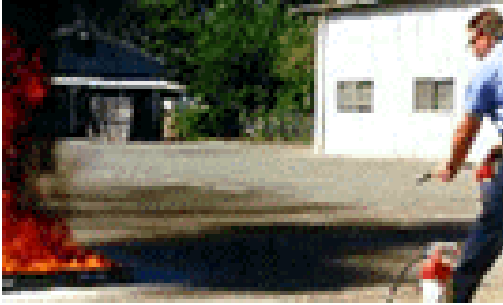
Squeeze the lever slowly. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

Sweep from side to side. Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish.

Remember: Aim at the base of the fire, not at the flames!!!!



PULL the pin at the top of the extinguisher



AIM the nozzle at the base of the fire so that you hit (spray) the fuel.



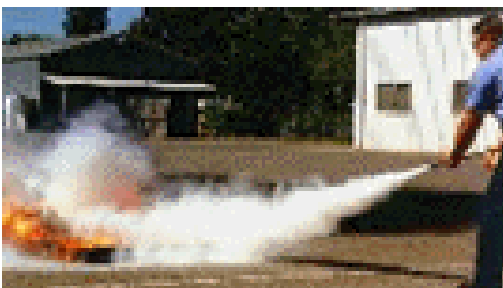
Stand approximately 8 feet back from the fire, **SQUEEZE** the handle to discharge the extinguisher



Once the fire appears to be out, continue to watch the area carefully for any signs the fire may re-ignite.



SWEEP the nozzle back and forth at the base of the fire.



Move forward slowly as you extinguish the leading edge of the fire.
Never Fight a Fire in the Following Circumstances

1. The fire is spreading rapidly.
2. You don't know what is burning. Without knowing what is burning you can't select the proper extinguisher. Failure to choose properly can expose you to explosive or toxic materials, etc.
3. You don't have the right fire extinguisher.
4. There is too much smoke and / or you are at risk of inhaling smoke.

Remember all fires will produce some amount of carbon monoxide, the most deadly gas produced by fire; however, other toxic gases can be produced depending on the type of material that is burning.

Care and Maintenance of the Extinguisher

1. Ensure that the location of all fire extinguishers is marked with an appropriate sign that can be seen from a distance.
2. Ensure that access to an extinguisher is not blocked in any way.
3. Inspect all extinguishers at least once a month or more often if they are exposed to severe conditions.
4. Ensure that the needle is in the green zone on all extinguishers with a gauge.
5. Do a visual check to ensure that the nozzle and /or other parts are not obstructed.
6. Check to ensure that the pin and "no tamper" seal are intact.
7. Make sure that the extinguisher has not been dented and that there are no signs of leaks rust chemical deposits or any other signs of abuse or wear.
8. Always wipe away any oil, gunk, corrosive material or any other dirt that may have settled on the extinguisher.
9. Always follow the manufacturer's recommendation for frequency of pressure testing.
10. Immediately replace damaged extinguishers.

11. Immediately recharge any extinguisher that requires recharging.
12. Recharge all extinguishers immediately after use regardless of how much they were used.