ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

FIRE EXTINGUISHER USE

Safely using a fire extinguisher involves training to operate it, awareness of potential personal exposure to extinguishing materials, precautions to take when cleaning up after a fire and waste disposal.

TRAINING

EH&S offers two types of fire extinguisher training courses to anyone with a UWNetID:

1. **Fire Extinguisher Training - Online**

   This course is intended for anyone who may need to use a fire extinguisher.

2. **Fire Extinguisher Training - Hands-On**

   Faculty, staff and students who work in labs, shops, and cooking areas where a fire extinguisher is likely to be used are encouraged to take the hands-on training course.

Take the online course anytime or register for the hands-on course on the EH&S Training page at www.ehs.washington.edu/training.

BEFORE USING AN EXTINGUISHER

Before using an extinguisher you should:

- Make sure others are aware there is an emergency.
- Instruct someone to call 9-1-1 or activate the fire alarm system using a manual pull station.

Keep in mind that a single extinguisher may not be enough to put out the fire, or it may reignite.

PERSONAL EXPOSURE

Most modern multi-purpose dry chemical extinguishers use a chemical powder, **mono ammonium phosphate**, creating a cloud of dust that helps smother a fire. There has been considerable research to make sure this dust is safe, especially the size of the dust particles.

The particle size of the dust within the extinguishers is larger and heavier than other dust particles, so if inhaled, it cannot go deep into the lungs to cause damage and scarring that can lead to chronic diseases.

However, the powdery dust can cause temporary irritation to the eyes and respiratory tract. Rinse eyes in an eye wash, if available, after using an extinguisher.

You may notice scratchy, irritated eyes, nose and throat, along with a cough that should clear up within a day or two. If the irritation persists you may want to consult a physician. If large quantities of dust are deposited in your eyes and you rub them it can cause minor scratching of the cornea which may take longer to heal, but no long term damage is expected.

Depending on the nature of the fire, you may also be exposed to smoke and other byproducts which can cause more serious respiratory effects. Often the fire department will evaluate those exposed in a fire situation. **If the fire involved or released toxic chemicals, let first responders know**; they may want you to be further evaluated.

Whenever you have questions regarding an exposure you can contact the Employee Health Center at no charge. You can find more information at www.ehs.washington.edu/workplace/employee-health-center.

CLEANING UP AFTER USING AN EXTINGUISHER

The clouds of powdery dust released while using a fire extinguisher can create a messy residue. In most UW buildings, UW Facilities (or janitorial contractors) is not responsible to clean up after a fire or discharged extinguisher. Dry chemical residue can damage sensitive equipment if not cleaned promptly. In most cases, you can safely clean up and dispose of the residue yourself. If in doubt, please contact EH&S at 206.543.7262 for additional information.

UNLESS YOU ARE TRAINED AND AUTHORIZED, DO NOT ATTEMPT TO CLEAN AFTER ANY OF THE FOLLOWING TYPES OF FIRES:

- Fires involving toxic or particularly hazardous substances
- Metals fires using a Class D extinguisher
- Fires involving biological or radiological materials
- Kitchen fires involving a built-in suppression system or portable type "K" fire extinguisher
- Fires involving lithium batteries or lithium battery powered equipment

PRECAUTIONS FOR CLEANUP

Safety glasses, gloves and a dust mask are recommended during cleanup to avoid unnecessary irritation. Additional PPE is typically not needed unless there is substantial contamination.

Check the label of the extinguisher to determine the type of chemical used. Some extinguishers contain only water or inert carbon dioxide. These will require no additional precautions during cleanup.

Most multi-purpose dry chemical extinguishers use mono ammonium phosphate, which should not be cleaned up with a vacuum. Instead, clean the area by doing the following:

1. First, remove any large pieces of debris.
2. Scoop or sweep the powder into a bucket or trash can lined with a plastic bag.
3. Finally, wipe the area with a clean, damp cloth. If available, use a mixture of baking soda and warm water to clean the area.

DISPOSAL

Extinguishing powder and non-hazardous debris can be bagged and disposed of as regular trash. Double bag, if possible; if using boxes or other containers make sure they are tightly sealed or taped.

Broken glass must be properly packaged for disposal in a sturdy cardboard container so not to puncture neighboring bags. See the Sharps and Lab Glass page at www.ehs.washington.edu/biological/sharps-and-laboratory-glass.

Contact EH&S at 206.616.5835 prior to disposal of batteries or electronic equipment.

REPORTING

All fires, even those successfully extinguished, must be reported to EH&S. Complete an Online Accident Reporting System (OARS) report at oars.ehs.washington.edu.

DISCHARGED EXTINGUISHERS

After an extinguisher has been used, even if not fully emptied, it must be serviced.

- On the Seattle campus, contact your building coordinator to submit a work order. For guidance on replacing a fire extinguisher refer to Fire Extinguisher Safety or call 206.685.0341.
- For UW Bothell, contact UWB Facilities and Campus Operations at 425.352.5466.
- For Tacoma, call Facilities Services at 253.692.5700.
- For all other locations contact your property manager or call EH&S to determine how to obtain service.

Please contact EH&S Building and Fire Safety at 206.685.0341 or email UWFire@uw.edu for more information about fire extinguisher use.