FIRE PREVENTION PLAN

Revised: 9/2019

STAKEHOLDERS

Internal

Portland State University students, faculty, and staff; PSU departments.

External

Entities that have a vested interest in fire and life safety at PSU (Portland Fire Bureau, Occupational Health and Safety Administration (OSHA), and the Oregon State Fire Marshal’s Office); members of the public. This list of external stakeholders is not an exhaustive list and will continue to be revised as needed.

OVERVIEW

The purpose of the Fire Prevention Plan is to provide a fire safe environment to students, faculty, staff and visitors on the PSU campus, and to comply with the Occupational Safety and Health Administration’s (OSHA) standard on fire prevention, 29 CFR 1910.39. Oregon has adopted the OSHA standard which can be found in the Oregon Administrative Rules Book 437-002-0043. Additionally, when applicable, PSU complies with City of Portland Fire Codes, National Fire Protection Association (NFPA) and International Fire Code (IFC) standards.

This Fire Prevention Plan has been developed by the Fire Prevention Coordinator with input from campus departments (e.g. Emergency Management, Environmental Health and Safety, and Facilities and Property Management, etc). It is intended to be a guidance and reference document for students, faculty, and staff at PSU.

PSU is committed to minimizing the threat of fire to students, employees, visitors, and property. This is accomplished through fire prevention education, inspections, fire hazard analysis, and fire evacuation training.
ASSIGNMENT OF RESPONSIBILITY

Fire safety is the responsibility of everyone on campus. All employees should know fire prevention methods specific to their work environment and are responsible for adhering to PSU policy regarding fire emergencies.

To limit the risk of fires, employees shall take the following precautions:

- Minimize the storage of combustible materials (i.e., paper, cardboard, plastic, electrical cords, etc.).
- Make sure that doors, hallways, stairs, and other exit routes are free of obstructions.
- Use only non flammable cleaning products.
- Perform “hot work” (i.e., welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas. Ensure that required hot work permits are obtained.
- Keep equipment in good working order.
- Repair and clean up flammable liquid leaks immediately.
- Keep work areas free of combustible material (i.e., paper, cardboard, dust, sawdust).
- Do not rely on extension cords for more than a temporary solution (less than 24 hours).
- Turn off electrical equipment when not in use.

If a fire emergency does occur, evacuation is the first priority. Any one that regularly occupies a PSU space or building should know where the Evacuation Assembly Location is for those areas. Knowledge of the buildings fire system, pull station locations, and fire extinguishers is also recommended.

Fire Prevention Coordinator

The Fire Prevention Coordinator shall manage the Fire Prevention Plan for PSU and all associated records.

Supervisors

Supervisors are responsible for ensuring that employees receive appropriate fire safety training, and for notifying the Fire Prevention Coordinator when intended operations cause an increased risk of fire. Supervisors are also responsible for enforcing PSU’s fire prevention policies.

Employees

Employees are required to complete all necessary safety training prior to performing work. They must conduct all operations safely as to limit the risk of fire and report any potential fire hazards to their supervisor.
MAJOR FIRE HAZARDS

HAZARDS

Open Flames

Due to the significant risk of fire and the sensitivity of fire/smoke detection devices in PSU buildings, **candles, lanterns, oil lamps, and other devices using an open flame are prohibited.** Open flames fueled by propane tanks are also prohibited in University Buildings.

On occasion, exemptions from this rule are made. Food service areas (including spaces hosting catered events), some designated laboratory spaces, and spaces used for cultural ceremonies may have been provided exemptions assuming the open flame devices are in a controlled setting and are being used under the direct supervision of a person trained for the activity.

Persons wishing to apply for a variance to PSU’s No Flame Policy must submit a request to the Fire Prevention Coordinator.* The request should include:

- The name of the person submitting the variance request
- Description of event / occasion and open flame device
- The name of the person responsible for the use of the open flame device
- The layout of the venue where the open flame device will be used
- Campus location of where the open flame device will be used
- Approximate length of time of the open flame
- A list of safety precautions that will be in place while the open flame device is in use (including location(s) of fire extinguishers in relation to the venue location)
  - Indicate in the request if additional fire extinguishers are needed to provide adequate fire protection coverage.

*Final approval for any requested variance may rest upon a decision from the City of Portland Fire Marshal’s Office.

Portable Space Heaters

All portable heaters shall have tip-over protection that automatically shuts off the unit if it is tipped over. Portable heaters shall also be UL listed and have automatic temperature shut off. There shall be adequate space provided between the heater and flammable furnishings or other materials at all times. Heaters shall be plugged directly into a wall outlet and shall never be plugged into an extension cord or surge protector.
Office Fire Hazards

Fires in office spaces have become more likely because of the increased use of electrical equipment in these spaces, such as computers, additional monitors, phones, and personal charging cords. In an effort to reduce the risk of office fires, employees shall:

● Ensure the trash and paper is not allowed to accumulate
● Ensure that extension cords are only being used as a temporary solution
● Ensure that splitter cords and multi-plug adapters are not being used
● Keep storage areas clear of garbage/recycling
● Turn off nonessential electrical equipment when it is not in use

Smoking

Smoking is prohibited on all PSU property including buildings, vehicles, and outdoor spaces.

For more information, review PSU’s Smoke and Tobacco Free Policy.

Electrical Fires

The misuse of electrical equipment and electrical system failures are the leading causes of workplace fires (25% of all workplace fires). Electrical fires can be caused by wiring with frayed sheathing, overloaded fuses, circuits, or outlets, or loose ground connections.

In an effort to prevent electrical fires, employees are responsible for:

● Making sure that worn wires are replaced.
● Never daisy chain power cords.
● Never using extension cords as substitutes for wiring improvements. (Additional outlets can be installed if needs are not being met in assigned spaces)
● Using only approved, UL listed extension cords.

Hot Work (cutting, welding, open flame work, etc)

Person(s) performing the work shall ensure the following requirements have been met:

● All necessary hot work permits have been obtained prior to work beginning.
● Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible.
● Adequate ventilation is provided.
● Persons performing hot work are wearing eye protection and protective clothing as appropriate.
● Cutting or welding is prohibited in sprinklered areas while sprinkler protection is out of service.
Fire watch has been established if required by the Authority Having Jurisdiction (AHJ).

**Flammable and Combustible Material**

**Class A**

Class A fires include common materials such as wood, paper, cloth, and plastics that can act as a fuel source. In an effort to reduce the risk of fires involving class A combustible materials, employees shall:

- Dispose of waste materials daily
- Keep work areas free of debris and fuel paths that could allow a fire to spread
- Store paper stock in metal cabinets
- Store rags in metal bins with closing lids
- Do not order excessive amounts of combustibles

**Class B**

Class B fires include more highly flammable and combustible materials such as oil, grease, some paints and lacquers, and flammable gases/aerosols. These materials are most commonly found in laboratory and PSU maintenance spaces. In an effort to reduce the risk of fires involving class B combustibles, employees shall not:

- Use a flammable liquid a cleaning agent in PSU buildings
- Use or store near exits, stairs, or egress pathways
- Perform any hot work in areas where class B combustibles are present
- Allow open flame or the generation of heat where class B combustibles are present

**Class K**

Class K fires involve vegetable oils, animal fats, or fats in cooking appliances. These are most commonly found in commercial cooking areas like cafeteria's around PSU Campus. In an effort to reduce the risk of class K fires, employees, students, and contractors shall:

- Ensure the appropriate hood and ventilation systems are in place anywhere grease laden vapors are produced
- Maintain a regular cleaning and maintenance schedule for equipment
- Not use excessive amounts of grease or oil while cooking
- Never leave cooking unattended

**FIRE PROTECTION EQUIPMENT**

Buildings on the PSU Campus vary greatly in design and construction date. Due to this, the fire protection systems in each building are not identical to each other. The systems that are
commonly seen in all buildings are described in this section. Building specific information can be provided by building Evacuation Wardens and/or the Fire Prevention Coordinator. PSU fire protection equipment is tested on an annual basis by Facilities and Property Management, the Fire Prevention Coordinator, or Environmental Health and Safety.

**Fire Alarm Systems**

In addition to the required annual system testing, fire alarm systems are also tested when they are activated for the annual evacuation drill.

**Notification Devices**

These devices utilize audible and visual prompts to notify building occupants that an evacuation is necessary. Usually, this consists of a loud siren and flashing strobe light. Occasionally, voice alarm communication systems are used to deliver a pre-recorded voice message to occupants.

**Initiating Devices**

Initiating devices are either manual or automatic. Manual initiating devices are generally known as pull stations and rely on building occupants to activate the device. Automatic devices are heat, smoke, and water-flow detectors. These devices monitor building conditions and building systems or any of their associated detection capabilities. If heat, smoke, or water-flow are detected, the device triggers the alarm system.

**Fire Alarm Control Panel**

This is the control center of any building fire system. The panel receives information from the detection devices in the building and is programmed to detect and report any concerns.

**Power Supply**

Primary and secondary power supply systems are required for fire and life safety systems. Primary generally consists of a dedicated power supply not being used for anything else in the building. The backup (secondary) can either be done through the use of a generator or batteries. Both are meant to allow the fire systems to work in the event of a building power outage.

**Sprinkler Systems**

There are two types of sprinkler systems most commonly found in PSU building: wet and dry pipe systems, or sometimes a hybrid of the two.

**Wet Pipe**

In a wet pipe system, the pipes always contain water. Water flows immediately if a sprinkler head is activated.
Dry Pipe

Dry pipe systems do not have water in them at all times. Rather, this system relies on pressurized air filled pipes. If a sprinkler head is activated, the drop in pressure from the release of air through the sprinkler head will activate a release valve and water will be released into the pipe and out through the sprinkler head.

Fire Extinguishers

Fire extinguishers shall be provided in occupancies and locations as required by the fire code in accordance to Fire Marshal requirements.

Common Use Spaces

Class ABC fire extinguishers can be found in the common use spaces around PSU campus. These extinguishers are often called “tri-class" or"multi-purpose" extinguishers because of their capability to fight class A, B, and C fires.

Commercial Kitchens

Class K fire extinguishers are found in kitchens around campus. These types of extinguishers are required which deep-fryers and/or griddles are used to prepare large amounts of food.

POTENTIAL IGNITION SOURCES

Due to the vast number of ways PSU spaces are used, there are many potential ignition sources. This is not a complete list, but rather a few examples meant to start the conversation about what may exist in individual spaces.

- Electronics and associated wiring
- Small appliances (coffee maker, toaster, hot plates, etc)
- Heaters and/or vents

WASTE AND HAZARDOUS MATERIALS

The Environmental Health and Safety department is responsible for the removal of hazardous waste on campus as well as enforcing standards on the safe storage of these materials on campus. EHS's Chemical Storage Guidelines document PSU and OSHA requirements.

To request a materials pick up, submit a work order through the Facilities Request Portal detailing what needs to be picked up. For more information and examples of hazardous waste, visit the PSU Waste Management website.
TRAINING

Portland State University shall present basic fire prevention information to all employees upon employment.

The Fire Prevention Coordinator offers annual training for volunteer Evacuation Wardens.

FIRE PREVENTION PLAN REVIEW

The Fire Prevention Coordinator shall review this Fire Prevention Plan annually for necessary changes.

QUESTIONS, CONCERNS, AND REQUESTS

If you have questions or concerns about the information contained in this Plan or if you would like to request a proactive inspection of your space, please contact the Fire Prevention Coordinator.