

# University of Washington

## Facilities Services

### Policy and Procedure for Hot Work Program

June 6, 2014(rev 11/16)

#### Overview

This program establishes written procedures to prevent fires resulting from temporary operations involving an open flame or that produces heat, sparks, or hot slag. This program is based upon the requirements found in Seattle Fire Code Chapter 35.

#### Definition and Applicability

Hot Work includes, but is not limited to brazing, cutting, grinding, soldering, thawing pipes, torch applied roofing, and welding. For clarification and determination if an operation is considered hot work, please contact EH&S at 543-0465.

#### Scope

The UW Facilities Services Hot Work Program applies to all operations within Facilities Services including alterations, maintenance, and campus operations, and any FS departments who perform hot work routinely or on occasion at designated stations or in the field.

#### General

Hot work such as cutting, welding, grinding and similar activities present a significant fire risk and should be avoided when practical, particularly if another method can be used to achieve similar results without significant additional cost or impact. Hot work is regulated by the International Fire Code and WISHA WACs, and specific rules must be followed. Fire resulting from operations where appropriate precautions are taken will generally be accepted as unforeseen conditions and unfortunate. Fire resulting from operations where employees intentionally disregard codes, standards, and UW policy may result in disciplinary action and termination.

#### Permits

##### Designated Work Areas

Facilities Services has the following active Annual Non-Marine Hot Work permits issued by the Seattle Fire Department (SFD) for designated work areas. Permit conditions for these permits are on file with the responsible department.

Table 1 – Designated Work Area Permits

| CODE | PERMIT TITLE                                 | BUILDING                                      | MATERIAL LOCATION                | RESPONSIBLE AREA                     |
|------|--|---|----------------------------------|--------------------------------------|
| 4911 | Annual Non-Marine Hot Work (1 to 3 Units)    | Health Sciences Bldg (B/1304, D/1328, E/1225) | Rooms B177, D120, D124, E107     | 17 MACHINE SHEETMETAL<br>56 S CAMPUS |
| 4912 | Annual Non-Marine Hot Work (4 or More Units) | Plant Services (1148)                         | Machinery Maintenance Shop       | 15 MACHINE                           |
| 4912 | Annual Non-Marine Hot Work (4 or More Units) | Plant Services (1148)                         | Sheet Metal Shop                 | 56 M SHEETMETAL                      |
| 4912 | Annual Non-Marine Hot Work (4 or More Units) | Plant Services (1148)                         | Fabrication Shop                 | 56 U CAMPUS SHEETMETAL               |
| 4912 | Annual Non-Marine Hot Work (4 or More Units) | Power Plant                                   | Various Locations in Power Plant | 50 Power Plant                       |

##### Outside of Designated Work Areas

A blanket permit for temporary hot work completed by FS has also been issued by SFD\*. Any work done outside of a designated work area covered by the Annual Non-Marine Hot Work permits listed above, is

covered under this permit AND the FS Hot Work Permit. The FS Hot Work Permit is completed by the Supervisor for each location outside of designated work areas where hot work is necessary. \*TBD

## **Procedures**

### Procedures for Work Outside of Designated Areas

When practical, objects to be welded, cut, ground, or heated must be moved to a designated safe location, e.g., a designated welding area. If hot work must be performed in place, a FS Hot Work Permit must be obtained before the hot work begins. To obtain a permit, contact your Supervisor.

All precautions on the FS Hot Work Permit must be met prior to performing any hot work. The FS Hot Work Permit will be issued by the supervisor or their designee, and is valid only for the date(s) and time specified on the permit. A copy of the permit must remain at the hot work location until the hot work is completed.

All personnel (employees, contractors, building occupants) must be suitably protected against hazards generated by the work, e.g., heat, sparks, fumes, welding rays, etc. This may include, but is not limited to, the use of personal protective equipment, fire blankets, shields, screens, or local exhaust ventilation.

### Prohibited Conditions

A Hot Work Permit will not be issued if ANY of the following conditions exist:

- Sprinkler protection is impaired
- Appropriate firefighting equipment is not readily available
- Combustible or flammable materials are within 35 feet and cannot be moved or protected
- Floor and wall openings cannot be covered
- Cutting or welding on pipes or other metals can conduct enough heat to ignite nearby combustible materials
- Any condition that could result in undue hazards by performing the work.

### Facilities Services Departmental Responsibilities

- Designate a responsible person(s) to oversee hot work done in their department.
- Ensure that all employees involved in hot work have read and understand this document and the work practices and procedures it contains.
- Ensure employees involved in hot work have received all required training prior to starting work.
- Training will also include Fire Extinguisher operation for both employees performing hot work and the fire watch, the employee performing hot work must be trained in the operation of the hot work equipment being used.

### Facilities Services Safety Manager

- The Facilities Services Safety Manager is responsible for the administration of this program. This includes updating program documents and forms, permit database management, and ensuring training content is relevant and up to date. The FS Safety Manager will not act as the responsible person for any FS Department.

### Facility Services Shop Responsibilities

- Each shop recognizes its responsibility for the safe use of cutting and welding equipment in their work areas
- Maintain established designated areas for cutting and welding
- Ensure hot work procedures are being implemented and followed in other than designated areas

- Ensure that supervisors and employees are suitably trained in the operation of the equipment and the safe implementation of the process

#### Supervisor Responsibilities

- Ensure that all employees are trained in and are following hot work procedures
- Issue FS Hot Work permits when work is outside of designated work areas
- Maintain permit in files for one year
- Ensure that all hot work equipment is in satisfactory operating condition and in good repair
- Ensure that employees are suitably trained in the operation of the hot work equipment being used
- Ensure that contractors hired and supervised by Facilities Services follow University procedures.

#### Employee Responsibilities

- Attend and actively participate in training sessions
- Obtain a hot work permit prior to starting work
- Follow and use hot work procedures
- Ensure that all hot work equipment is in satisfactory operating condition and in good repair
- Protect nearby personnel and passersby against heat, sparks, etc. when working in occupied buildings
- Ask their supervisor, EH&S Building & Fire Safety, or the FS Safety Manager for clarification if any part of the Hot Work Program requirements are unclear.

#### Fire Watch Responsibilities and Requirements

The Fire Watch shall have no other duties except:

- Watch for fire
- Communicate an alarm
- Extinguish spot fires
- Must stay on watch at least 30 minutes after hot work has been completed

Fire Watch Requirements shall be provided during hot work activities and **shall continue for a minimum of 30 minutes after the conclusion of the work**

#### Responsible Person

Responsible for overseeing the onsite employees performing hot work to ensure that required hot work safety measures are taken to prevent fires and fire spread.

Shall be trained in the safety and fire safety considerations for hot work.

Shall survey hot work areas and equipment to conduct a pre-hot-work check prior to commencement of hot work.

Is authorized to extend the fire watch based on their site observations

### Reporting Fire Emergencies

All active fire and explosion emergencies must be reported immediately regardless of size and nature, by calling 911 and/or activating the fire alarm system. The level of response will vary based upon the information provided.

To comply with UW Policy, all incidents, including minor fires that self-extinguish and those that do not require emergency assistance or evacuation, must be reported to EH&S within 24 hours. EH&S investigates all fires to determine their cause, provide consultation, and to document the incident for reporting purposes. Please call EH&S at 206-543-0465, or [uwfire@u.washington.edu](mailto:uwfire@u.washington.edu) to report a fire or explosion to EH&S.

### Outside Contractor Work

The hiring department is responsible for ensuring that outside contractors follow Seattle Fire Department hot work requirements when working on the UW campus. Outside contractors must obtain their own permit from SFD.