



Hot Work Information

What is hot work?

Hot work is any activity that creates heat, flame, sparks, or smoke. Examples of hot work include, but are not limited to: welding (gas or arc), cutting, grinding, brazing, soldering, thawing, and hot roofing operations.

Any operation which produces dust, steam, or other impact which affects fire protection systems will also be considered hot work for the purposes of the permitting process.

Why do I need a hot work permit?

Washington State law requires a **hot work permit** when certain conditions are met as outlined by the Washington Administrative Code (WAC). WACs relevant to work performed at Western are [296-24-69501](#), [296-24-69503](#), [296-24-69507](#), and [296-155-410](#).

More importantly, hot work involves specific hazards to our employees and facilities. A review and permitting process allows us to work together to reduce the risks of those hazards.

Who is responsible for the hot work permit process?

As derived from the University health, safety and environmental protection policy ([U5950.01](#)) Environmental Health and Safety (EHS) is responsible for review and permitting of hot work activities.

Supervisors are responsible for ensuring that hot work areas are safely prepared, equipment to be used is in good working condition, and hot work to be performed by their employees is reviewed and permitted by EHS prior to performance of the work.

Employees are responsible for ensuring they have a hot work permit and they have checked their equipment prior to performing hot work and to follow safe practices for performance of hot work at all times.

Facilities Management (FM) Technical Maintenance Services is responsible for providing information and assistance in isolating fire protection systems from impact by hot work activities.

When is a hot work permit required?

Hot work permits are required any time hot work, as defined above, is performed by university employees or contractors.

Permits are required on campus or in any facility or area leased by the university with the following exceptions and as shown on Table 25-1:

- Work performed in designated hot work areas
- Work performed within the job site during the construction of new buildings
- Work performed in buildings or portions of buildings closed for substantial renovation.

What are designated hot work areas?

Designated hot work areas are areas such as shops and labs that have been approved by EHS as safe for ongoing hot work activities. See Table 25-1 for a list of these areas.

Are contractors required to obtain hot work permits?

Yes, contractors must follow the same process as Western employees. In addition, fire safety procedures must be addressed in the contractor's project specific safety plan.

What basic precautions must be taken with hot work?

WAC [296-24-69501](#) requires the following- If the object requiring hot work cannot be readily moved to a designated hot work area all fire hazards in the area must be removed to a distance of at least 35 feet or guarded from heat, sparks, and slag. If this cannot be done no hot work shall be performed.

FM Technical Maintenance Services must be consulted for any operation which may impact fire protection systems.

Where is hot work prohibited?

WAC [296-24-69503](#) prohibits hot work in the following situations:

- When the basic precautions listed above cannot be taken.
- If appropriate firefighting equipment is not available
- In any area not authorized by EHS.
- In sprinklered buildings while such protection is impaired.
- In the presence of explosive atmospheres or where explosive atmospheres may develop.
- In areas near the storage of large quantities of exposed, readily ignitable materials.

When is a fire watch required?

WAC [296-24-69503](#) requires a fire watch whenever hot work is performed in locations where other than a minor fire might develop or any of the following conditions exist:

- Appreciable combustible material, in building construction or contents, closer than 35 feet to the point of operation.
- Appreciable combustibles are more than 35 feet away but are easily ignited by sparks.
- Wall or floor openings within a 35-foot radius expose combustible material in adjacent areas including concealed spaces in walls or floors
- Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

A fire watch person is to remain on the jobsite for a minimum of 30 minutes after work under the above conditions is completed. A longer fire watch may be required as determined by EHS.

Does the fire watch person need any special training?

Persons acting as fire watch must have completed fire extinguisher training and know how to sound an alarm in the event of a fire. See Task Description for the fire watch at the end of this section.

Why is non-fire causing work part of the hot work program?

Some types of non-fire causing work may impact fire protection systems and, therefore, life safety. Examples would include dusty work, such as sanding, and steam-generating work. Hot work permitting procedures must be followed with such work to protect the integrity of the fire protection system and prevent false activation.

How do I get a hot work permit?

Contact the Environmental Health and Safety Office at X3064.

- Whenever possible this should be arranged 48 hours in advance. This will ensure EHS personnel are available and avoid delay of work.

Where hot work activity may impact fire protection systems FM Technical Maintenance Services must be contacted prior to the permitting process. Technical maintenance personnel are the only persons authorized to disable/enable fire protection systems.

Who signs a hot work permit?

The person performing the hot work or their supervisor/lead may sign the permit. Supervisors signing but not performing the work are responsible for ensuring compliance with conditions of the permit.

What do I do with a hot work permit?

Display the permit in a conspicuous place near the work being performed. When the permitted work is complete return the permit to EHS.

How long is a hot work permit valid?

As determined by EHS and indicated on the permit or whenever conditions reviewed at the issuing of the permit change. EHS should be contacted immediately if these conditions change. Generally, permits issued at any point beginning Monday morning will not be issued for a period longer than the end of the work week on Friday night.

Can a hot work permit be issued for multiple areas?

EHS may, at their discretion, issue a permit for multiple areas under the following conditions:

- Work is to be done sequentially by the same permitted worker through several areas within the same building.
- All work in the separate areas will be completed within the same time frame.
- Conditions in the separate areas are substantially the same.
- Permit stays with the worker to be displayed near hot work being done.

Are there special requirements for hot work in confined spaces?

All work performed in confined spaces must comply with Chapter [296-809](#) WAC.

In accordance with WAC [296-24-69507](#), when working in confined spaces and work is suspended for any substantial period of time such as lunch or overnight the following must happen:

- Arc welders- electrodes must be removed from holders, holders must be carefully placed to avoid accidental contact, and welding machines must be disconnected from the power source.
- Torch valves- must be closed and the gas supply to the torch shut off outside the confined space. Where practical the torch and hose shall also be removed from the confined space.

A confined space entry permit is required in addition to a hot work permit for work in permitted confined spaces. **Please note-** hot work performed in a non-permitted confined space usually results in a change of designation to permitted confined space for the duration of the hot work. Contact EHS prior to entering any confined space to prepare for hot work activities.

Table 25-1. Designated Hot Work Areas at Western

Hot work in areas not specifically listed below requires a Hot Work Permit.

Hot work for repair/upgrade of these areas does require a Hot Work Permit.

Hot work in areas listed here must meet basic safety requirements of Washington State law.

For a hot work permit, call (360) 650-3064, email ehs@wwu.edu or stop by Environmental Studies, Room 72.

Location at Western	Details of Hot work Area
All University Labs	For activities such as Bunsen burner use, electric heating of lab materials, or similar academic activities only . All other hot work activities such as renovation or repair of lab facilities require a hot work permit
Engineering Technology- Dyno Room, 153	Ongoing hot work authorized NOTE: Must have resin and other combustibles removed before welding
Engineering Technology - Room 135	Ongoing hot work authorized NOTE: Must have cardboard, wood and other combustibles removed before welding
Environmental Sciences Building Welding and Foundry Shop	Not currently operational
Performing Arts Center MainStage Theater	A permit is required before performing hot work
Theater Scene Shop	Ongoing hot work authorized
Outdoor Shop	A permit is required before performing hot work
Lakewood Shop	Ongoing hot work authorized
Arts Annex- foundry and metal shop areas <u>only</u>	Ongoing hot work authorized
Steam Plant- maintenance shop area <u>only</u>	Ongoing hot work authorized
Facilities Auto Shop	Ongoing hot work authorized
Facilities Plumbing Shop	Ongoing hot work authorized
Facilities Sheet Metal Shop	Ongoing hot work authorized
Facilities Electric Shop	A permit is required before performing hot work
Facilities Grounds Shop	A permit is required before performing hot work
Shannon Point- Shop <u>only</u>	Ongoing hot work authorized
Scientific Technical Services- Bond Hall Shop <u>only</u>	Ongoing hot work authorized
Technology Development Center	A permit is required before performing hot work

Acting as Fire Watch

A fire watch is sometimes needed when there has been a reduction in a facility's life-safety feature or a potentially hazardous condition exists. As an example, part of a building's detection or alarm system may not operate normally due to a malfunction. Fire watches are sometimes required by local and state regulation.

The express purposes for assigning a person to an area or building as a fire watch are:

- Notifying the fire department, the building occupants or both of an emergency,
- Preventing a fire from occurring,
- Extinguishing a small fire, if possible, and
- Protecting the public from fire or changes in life-safety conditions.

When assigned the duties of a fire watch, the responsible person:

1. **Conducts** an on-going, roving surveillance of the assigned area, which would include moving between floors in a multi-floor building.

NOTE: If possible, **brings** an orange vest and **wears** it to perform fire watch duties. Vests are available from Environmental Health and Safety.

2. If a fire emergency occurs, immediately **sounds** the alarm. **Does** this in the following ways:
 - 2A. **Pulls** the nearest fire alarm, if it is functional
 - OR**
 - 2B. **Calls** 911 from a safe place, and then **calls** x3911 (University Police Dispatch)
 - 2C. **Notifies** persons in the immediate area.
 3. **Initiates** evacuation from the building.
 4. **ONLY** if trained to use an extinguisher and able to do so without danger to self or others, **uses** an extinguisher on a small fire.

DOES NOT delay notification or evacuation to fight a fire.
 5. If it can be done safely, **closes** doors and windows while leaving.
 6. While waiting for emergency responders, **assembles** occupants in a safe place, upwind.

NOTE: Uses the designated building meeting location, if known.
 7. **Meets** the responding University Police vehicle and **provides** as much pertinent information as possible about the emergency.
 8. **Waits** outside at the police vehicle or near the responding fire truck to provide assistance.
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