PURPOSE

To establish a protocol in accordance with OAR 437-002-0280, Subdivision Q; 29 CFR 1910.252; and NFPA 51B, that outlines fire prevention responsibilities, precautions, and procedures using the PSU Hot Work Permit System. Hot work is welding, brazing, grinding, open flame use, or any action that could produce sparks or fire.

EXCEPTIONS

A Hot Work Permit is NOT required for the following areas:
- Any work space designed for welding, brazing or any open flame use.
- Open flames used for instruction and research in designated laboratories.

RESPONSIBILITIES

Environmental Health and Safety
The Environmental Health and Safety (EHS) department is responsible for the development, implementation and review of the Hot Work procedures at PSU. The Fire Prevention Manager will manage the Hot Work Permit Program, verifying all requirements and precautions are met prior to approving all Hot Work requests.

Supervisors, Employees and Contractors Performing Hot Work
Supervisors shall ensure this Hot Work Permit System is adhered to. Contractors are responsible for obtaining a hot work permit from EHS. For major projects requiring hot work, contractor must submit their plan for review by the Fire Prevention Manager prior to commencing hot work. The contractor plan shall be in conjunction with PSU’s hot work program.

Personnel Performing Hot Work
Employees performing hot work are responsible for:
- Obtaining a Hot Work Permit prior to the beginning such operations.
- Ensuring the work area is fire safe, and the permit safety precautions are met.
- Utilizing appropriate personal protective equipment.
- Adhering to safety standards and maintaining familiarity with the fire alarm system, including how to activate an alarm in the event of a fire.
- Shielding combustibles. Terminate hot work if unsafe conditions develop.
- Using precautions when working on roofs, high walls, or other elevated areas.
TRAINING

Employees/contractors who will be performing and/or supervising hot work operations shall take an appropriate training course, and receive a safety briefing from the Fire Prevention Manager prior to being issued a Hot Work Permit. The Hot Work Permit must remain at the job site for any regulatory inspector to view (OSHA, Fire Marshal).

PROCEDURE

This procedure outlines specific measures to manage hot work operations. The standard for authorizing hot work is the FM Global Hot Work Permit System.

Before Hot Work

1) Consider alternatives to hot work, utilizing hot work as a last resort.
2) When possible, move objects to be welded, cut or heated to a safe area.
3) Prepare the hot work area. Personnel performing the hot work may utilize the Required Precautions Checklist (below) to ensure the hot work area is fire safe.
4) Flammable materials shall be moved at least 35 feet from the hot work area or properly shielded/covered with an approved fire resistive blanket.
5) Sprinkler system water supply control valves must remain open, and an appropriate fire extinguisher must be readily available.
6) Hazardous processes in the surrounding areas shall be shut down.
7) Sufficient ventilation must also be provided.
8) The Fire Prevention Manager shall be briefed on what the work will involve, and will verify that all precautions listed on the permit have been met, including:
   a. Ensuring only qualified employees or contractors perform the hot work, and
   b. Ensuring that affected personnel have been notified of the hot work activity.
9) The Fire Prevention Manager shall complete Part 1 of the Hot Work Permit, authorizing the hot work for the specified start/stop time and date.
   a. The Hot Work Permit is valid only for the day of the operation it is issued for.
   b. Jobs requiring hot work for multiple days require permits for each day.
10) Part 1 is completed and shall be kept in the Fire Prevention Office.
11) Part 2 will be issued to the person performing the hot work operation.
12) At the completion of the work, Part 2 is completed and returned to the Fire Prevention Office and reattached to Part 1, and filed for future reference.

After Hot Work

1) The area shall be monitored for up to an additional 3 hours after work ends.
2) A final area inspection shall be completed prior to returning Part 2.

REQUIRED PRECAUTIONS CHECKLIST

This checklist shall be used to prepare a hot work area. The Fire Prevention Manager will verify all precautions listed have been taken prior to authorizing hot work.
Required Precautions Checklist
1) Control valves to water supply for sprinkler systems are open.
2) Fire extinguishers are in serviceable/operable condition.
3) Hot work equipment in good working condition.

Requirements within 35 feet of work
1) Flammable liquid, dust, lint, and oily deposits removed.
2) Explosive atmosphere in area eliminated.
3) Floors swept clean.
4) Combustible floors wet down, covered with damp sand or fire resistant sheets.
5) Remove combustible materials or protect with approved fire resistant shielding.
6) All wall and floor openings shall be covered.
7) Cover or shut down ducts that can carry sparks to distant combustible materials.

Hot work on walls, ceilings or roofs
1) Construction is noncombustible and without combustible covering or installation.
2) Combustible material on other side of walls, ceiling or roof is moved away.

Hot work on enclosed equipment
1) Enclosed equipment cleaned of all combustible materials.
2) Containers purged of flammable liquid/vapor.
3) Pressurized vessel, piping equipment removed from service, isolated and vented.

Fire watch/hot work area monitoring
1) Fire watch will be for the entire operation, and for 1 hour after it concludes.
2) Fire watch shall be supplied with suitable extinguishers.
3) Fire watch is trained in use of equipment and in activating an alarm.
4) Fire watch may be required in adjoining areas, above and below the work area.
5) Monitor hot work area for up to an additional (3) hours after the 1 hour fire watch.

Additional Information
Contact the PSU Fire Prevention Manager for hot work consultation at (503) 725-4325.