



TEXAS WOMAN'S UNIVERSITY™

Hot Work Program

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Office of Environmental Health & Safety

940-898-4001 option 3

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<https://twu.edu/health-safety>



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I. INTRODUCTION

Texas Woman's University (TWU) is committed to the protection of the health and safety of employees, students, visitors, and secondarily to the protection of property. All employees of TWU have the responsibility to work safely on the job. This program establishes the minimum safe procedures for the operation of cutting, brazing, welding, soldering, grinding, or any other similar operation at any TWU facility.

A. Scope

All TWU employees, students, and outside contractors/service companies involved in the use of spark- or flame-producing equipment at all TWU facilities are required to conform to these guidelines.

B. Review of Program

The Hot Work Program will be reviewed at least once per 12-month period after each hot work event takes place by the Office of Environmental Health & Safety. This review will encompass changes in regulations, newly identified safety hazards related to confined space entry, changing demands of the program for the campus, and changes in technology.

C. References

This document is developed to comply with the regulations outlined in the Occupational Safety and Health Administration (OSHA) Welding, Cutting, and Brazing Standard (29 CFR 1910.252). This program also meets the requirements of TWU's University Regulations and Procedures [Policy 04.430: Environmental Health and Safety](#).

II. POLICIES AND PROCEDURES

A hot work permit must be issued before conducting any operation involving cutting, brazing, welding, soldering, grinding, or any other similar operation in areas that are not permanently designated for hot work. The hot work permit shall be valid for the specific day and operation for which it was issued. In the case of hot work operations requiring additional days, additional permits will be issued for the subsequent days.

A. Completing the Hot Work Permit

A hot work permit may be completed by a TWU employee. Contractors must obtain copies of blank hot work permits from a TWU employee or by visiting the TWU Environmental Health & Safety [webpage on Hot Work](#). Below is a list of the mandatory hot work permit requirements; each item must be checked off on the permit before work may proceed.

1. Mandatory Precautions

Mandatory precautions for all hot work include:

- Hot work equipment is in good working order (the equipment used to conduct the hot work operation: welders, torches, grinders, etc.). Oxy-acetylene torches must be equipped with backflow preventers on both gas lines.
 - Sprinklers (if present) and fire extinguishers in area are in service and operable.
 - At least one fire watch personnel, other than the person(s) conducting the hot work, is present.
 - Fire watch personnel has access to a minimum of a 10-pound ABC fire extinguisher within 30 feet of the hot work location.
 - Fire watch is provided during the hot work operation and for a minimum of 1 hour after hot work operations conclude, including any breaks. The permit-authorizing individual may reduce the fire watch to 30 minutes after the hot work stops if warranted due to an absence of other fire hazards.
 - Fire watch personnel are trained on fire extinguisher use and how to sound the alarm (building fire alarm or by notifying TWU Department of Public Safety).
 - Pressurized vessels, piping, and equipment are removed from service, locked out, and vented (refer to the [TWU Lockout Tagout Program](#) for information on proper lockout/tagout procedures).
- a) *Mandatory Precautions Within 35 Feet of Hot Work*
- Flammable liquid, dust, lint, and oily deposits are removed.
 - Floors swept clean and trash removed.

- Combustible floors covered with fire-resistive/noncombustible materials.
 - Ducts that might carry sparks away from the area are covered, protected, or shut down.
 - All wall and floor openings covered.
 - Other combustible storage material removed or covered with welding pads, blankets, or curtains, or metal shields or noncombustible materials.
 - Explosive, flammable, or other hazardous vapors, gases, or dusts are eliminated from the hot work area.
- b) *Mandatory Precautions for Hot Work on Walls, Ceilings, or Roofs*
- Flammable liquid, dust, lint, and oily deposits removed.
 - Construction must be noncombustible and without combustible coverings or insulation.
 - Combustible material on the opposite side of walls, ceilings, or roofs undergoing hot work operations is moved away.
- c) *Mandatory Precautions for Hot Work on Enclosed Equipment*
- Enclosed equipment is cleaned of all combustibles.
 - Containers are purged of flammable liquid and/or vapor.
 - Pressurized vessels, piping, and equipment are removed from service, locked out, and vented.
- d) *Mandatory Precautions for Hot Work Fire Watch*
- A minimum of a 10-pound ABC fire extinguisher is located within 30 feet of the hot work location.
 - Fire watch personnel are not actively participating in the hot work operations.
 - Fire watch continues throughout the duration of the hot work operations and for at least 1 hour after the hot work stops (including breaks). The permit-authorizing individual may reduce the fire watch to 30 minutes after the hot work stops if warranted due to an absence of other fire hazards.
 - Fire watch personnel are trained on fire extinguisher use and how to alert emergency personnel and/or first responders for assistance.

2. Optional Additional Precautions

The following are additional precautions that may be required by the TWU employee authorizing the hot work operations. The authorizing employee should carefully consider if these additional precautions are recommended to protect the health and safety of employees, students, and visitors, or for the

protection of property. When in doubt, the additional precautions should be implemented. The authorizing employee checks the boxes in the “Required” column for the selected additional precautions, then checks the box in the “Complete” column when they have been implemented.

a) Additional Precautions

- Additional fire watch personnel in adjoining areas (potentially above/below the hot work location).
- Extended fire watch period beyond 1 hour.
- Additional ventilation required in area.
- Barricades/signage to keep unauthorized personnel out of area.
- Check the area for explosive atmosphere.
- Use of welding screens to protect individuals in the area.

If there is any question as to whether a permit should be issued, work will be postponed until Risk Management can perform an inspection of the work area and has approved it as safe to proceed.

3. Permit Authorization

The TWU employee authorizing the hot work operations prints and signs their name at the bottom of the permit to indicate that they have examined the work area and authorize the work to proceed, provided that the required precautions are maintained. In the case of a [digitally submitted permit](#), digital signatures or checking certain prompts on the permit shall serve as acknowledgement and signature.

The names of the persons conducting the work and the company name (if non-TWU personnel are conducting the hot work operations) are included.

4. Closing the Hot Work Permit

Once the hot work operations and the required fire watch period are completed, the fire watch personnel must print and sign their name on the permit and return the completed permit to the Office of Environmental Health & Safety. In the case of the digital permit, the permit will close at the time indicated on the permit request.

B. Designated Hot Work Area

TWU Environmental Health & Safety (EH&S) shall designate areas where hot work operations will be allowed to be conducted without the issuance of a hot work permit. EH&S will evaluate potential hot work areas and determine if they can meet the conditions listed above consistently, and what additional procedures or precautions

must be implemented to ensure hazards do not develop over time when a permit is not required.

Current designated hot work areas are listed below:

- Central Plant Welding Shop - Facilities Management and Construction
- Automotive Shop - Facilities Management and Construction
- Sculpture Welding Shop - Fine Arts Building
- Research and teaching laboratories
 - Approved only for use of lab-type equipment, such as Bunsen burners

C. Hot Work in Confined Spaces

If hot work operations will be conducted in a confined space, the work must be conducted in accordance with this program as well as the [TWU Confined Space Entry Program](#). This will generally require both a confined space entry permit and a hot work permit to be completed.

ATTACHMENTS



HOT WORK PERMIT

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This permit is to be retained by the person authorized to perform the hot work and must be produced upon request.

Date permit is Valid: _____ This permit is valid for one task and one day only.

Description of Work to be Performed: _____

Exact Location of Job: _____

List of Particular Hazards/Hazardous Areas: _____

MANDATORY PRECAUTIONS FOR ALL HOT WORK

- Hot work equipment is in good working order (oxy-acetylene torches equipped with backflow preventers)
- Sprinklers (if present) and fire extinguishers are in service and operable
- At least one fire watch personnel is present (or contact the Office of Environmental Health & Safety)
- Fire watch personnel have access to a minimum of a 10 lb. ABC fire extinguisher within 30 feet of location
- Fire watch provided during work and for a minimum of 1 hour after hot work concludes, including breaks
- Fire watch personnel are trained on fire extinguisher use and how to sound the alarm (fire alarm or notify DPS)
- Pressurized vessels, piping, and equipment removed from service, locked out, and vented (lockout/tagout)

MANDATORY PRECAUTIONS WITHIN 35 FEET OF HOT WORK AREA

- Flammable liquid, dust, lint, and oily deposits removed
- Floors swept clean and trash removed
- Combustible floors covered with fire-resistive/noncombustible materials
- Ducts that might carry sparks away are covered, protected, or shut down
- All wall and floor openings covered
- Other combustible material removed/covered with welding pads/blankets, metal shields, etc.
- Explosive, flammable, or other hazardous vapors, gases, or dusts are eliminated from the work area

MANDATORY PRECAUTIONS FOR HOT WORK ON WALLS, CEILINGS, OR ROOFS

- Construction must be noncombustible and without combustible coverings or insulation
- Combustible material on opposite side of walls, ceilings, or roofs is moved away

MANDATORY PRECAUTIONS FOR HOT WORK ON ENCLOSED EQUIPMENT

- Enclosed equipment is cleaned of all combustibles
- Containers are purged of flammable liquid/vapor

ADDITIONAL PRECAUTIONS (if required by TWU employee authorizing work)

N/A REQ COM N/A=Not Applicable REQ=Required COM=Completed

- Additional fire watch personnel in adjoining areas (including areas above/below)
- Extended fire watch period beyond 1 hour; specify: _____
- Additional ventilation required in area
- Barricades/signage to keep unauthorized personnel out of area
- Check the area for explosive atmosphere
- Use welding screens to protect individuals in the area
- Other; specify: _____

AUTHORIZATION TO PROCEED

I verify that the job area has been examined and authorize listed work to be carried out providing the above conditions are maintained throughout the term of the permit.

TWU Employee Authorizing Work _____ Signature _____

Person(s) Performing Hot Work _____ Company _____

Signature(s) _____

Upon completion of hot work and fire watch, sign and return to Office of Environmental Health & Safety.

Fire Watch Personnel _____ Signature _____