

ENVIRONMENTAL HEALTH & SAFETY
THE UNIVERSITY OF TEXAS AT TYLER



HOT WORK
PROGRAM

2023

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Introduction:

Hot work is typically recognized as any work that involves burning, welding, using fire- or spark-producing tools, or that produces a source of ignition. The University of Texas at Tyler (UTT) proactively responds to this potential hazard through implementation of a Hot Work Program.

Purpose:

This program establishes written procedures to be followed when welding, cutting, or conducting other open flame work on UTT property to prevent the outbreak of fire, fire alarm activations, smoke, and odor migration in buildings.

Application:

This program applies to work performed by any UTT employee, student, or contractor performing work in existing buildings, new construction in existing buildings, or new construction attached to existing buildings. It is enforced by the Department of Environmental Health and Safety (EH&S). When hot work is performed outdoors, necessary precautions should be taken to ensure combustible materials have been cleared and the risk of fire has been eliminated.

This procedure does not apply to new construction where there is no attachment to existing buildings or to areas that are specifically designed and equipped for such operations, i.e. maintenance shop areas and designed welding areas.

Definitions:

- **Fire Watch** is a trained individual stationed in the hot work area who monitors the work area for the beginning of potential, unwanted fires both during and after hot work. Individuals must be trained and familiar with the operation of portable fire extinguishers and methods to activate building fire alarm systems.
- **Hot Work** is any operation producing flames, sparks or heat including cutting, welding, brazing, grinding, sawing, torch soldering, thawing frozen pipes, applying roof covering etc.
- **Hot Work Permit** is a special permit, which authorizes "Hot Work" activities at a specific location and time. The permit will be properly filled out, displayed on site and returned to the employee supervisor when the hot work is complete. Permits contain a checklist to be completed prior to commencing hot work activities and also the conclusion of the hot work.
- **Other Open Flame Work** is any work utilizing a torch or other flame-producing device for removing paint or heating pipes, etc. Any work utilizing solder, tar pots, or linseed oil.

General Program Requirements:

1. All welding, cutting and other open flame work shall be performed in accordance with OSHA requirements, National Fire Protection Association (NFPA) Standard 51B "Hot Work Guidelines" and other requirements established by The University of Texas System (UTS).
2. A Hot Work Permit (Appendix A) must be completed and approved prior to conducting any hot work within a UT Tyler facility.
3. If it is determined that the hot work may affect the facility fire detection system, a Fire System Shutdown Request must be completed and submitted to EH&S for approval.

4. No welding, cutting, or other open flame work shall be accomplished in any area where the automatic fire sprinkler system has been impaired or is otherwise rendered inoperable.
5. An annual Hot Work Permit shall be issued for designated welding shop areas controlled by the Facilities Management Department and School of Engineering.
6. Hot work should not be performed if the work can be avoided or performed in a safer manner. When practical, objects to be welded, cut or heated should be moved to a designated safe location, i.e. maintenance shops.
7. If hot work must be performed, a Hot Work Permit must be completed.
8. All precautions on the Hot Work Permit must be met prior to any work commencing.
9. The supervisor or the employee performing the hot work will complete the permit.
10. The Hot Work Permit is only good for the date specified on the permit.
11. A Hot Work Permit must be displayed at the work site during all hot work.
12. All building occupants must be suitably protected against hazards generated by the work; i.e. heat, sparks, fumes, welding rays, etc.
13. A fire watch must be implemented if conditions warrant. If no fire hazards or combustible exposures are present a fire watch is not required.

Hot Work Procedures:

1. Before hot work begins:
 - a. Ensure that an appropriate fire extinguisher must be available and operable. The fire extinguisher must be properly charged and bear proof of proper inspection and service. (i.e. current annual inspection tag, hydrostatic test label for extinguishers over 12 years old and internal examination label for extinguishers over 6 years old)
 - b. Flammable and ignitable materials and debris must be moved at least 35 feet from the hot work area or covered/protected by fire resistant material.
 - c. Explosives, oxygen acetylene tanks, flammable liquids, compress gas cylinders or stored fuel must be moved at least 50 feet from the hot work area or covered and protected from the hot work by fire resistant material.
 - d. Smoke and fire detectors in the immediate area of the hot work must be temporarily disabled until the hot work is completed. This can only be accomplished by contacting EH&S.
 - e. Ensure adequate ventilation is available (especially when cutting or welding material with painted or metal coated surfaces). For questions or assistance, on ventilation issues, contact EH&S.
 - f. Ensure building occupants are protected or isolated from the hot work area. If work impacts building occupants, the work must be coordinated with the building proctor.
 - g. Ensure cracks or holes in floors, walls, and ceiling (including ductwork) are properly covered or plugged with fire resistant material.
 - h. Ensure hot work equipment is operable and in good repair.
 - i. Ensure drums, barrels and tanks have been cleaned and purged of flammables and toxics, all tank feeds are closed, and the tank vented.
 - j. Ensure workers and fire watch personnel are trained in the use of fire extinguishing equipment and how to activate the fire alarm system.

2. When hot work is complete:
 - a. The work area and any potentially affected surrounding areas should be inspected for fire, fire damage or the potential for fire for a minimum of 60 minutes following completion of the hot work.
 - b. Smoke / fire alarms that were disabled because of hot work should be reactivated by contacting EH&S.
 - c. Hot work permit is closed out.

Responsibilities of Key Personnel:

- Management
 - It is the responsibility of management to ensure that this program is implemented in those areas under their jurisdiction where applicable.
- Environmental Health and Safety
 - Develop a written Hot Work program and revise the program as necessary.
 - Establish additional fire safety requirements (e.g. fire guard service, fire watch, etc.), as required.
 - Assess fire alarm system impact and deactivate detection devices as required.
 - Assist with Hot Work procedural training for supervisors, faculty, staff, and students.
 - Periodically audit operations, documentation, and training.
 - Conduct Hot Work inspections and issue permits for work
 - Ensure all requirements of the Hot Work program are met prior to commencement of any work
- Supervisors including Faculty and Instructors
 - Be thoroughly familiar with the Hot Work procedures.
 - Identify employees who may perform hot work as defined in this program.
 - Coordinate with EH&S to provide training for employees conducting or overseeing hot work activities
 - Ensure compliance with this program by employees.
- Employees
 - Be thoroughly familiar with Hot Work procedures
 - Follow all Hot Work procedures
 - Complete Hot Work Permits
 - Complete required training program
- Students
 - Students should be familiar with Hot Work procedures where applicable.
- Contractors
 - The contractor shall inform the EH&S and Facilities Management departments of any hot work required to be conducted on UT Tyler property and is responsible for ensuring that their employees and all subcontractors comply with this program.

Record-Keeping

A hot-work inspection will be completed, signed and dated by a designated member of the Environmental Health and Safety department. EH&S shall maintain the original permit on file for a minimum of three years. A copy of the hot-work permit will be forwarded to any department which required a permit.

Annual Compliance Review

The Safety Organization will review the program annually to determine how the program can be improved. EH&S will strive to keep all programs up to date, with accurate information that employees, and outside contractors can rely on.

Training

All hot work supervisors and operators must receive hot work training before starting any hot work activities. The training must include the requirements of the UT Tyler hot work program as well as safe practices for hot work, required personal protection equipment and fire extinguisher use.

Revisions

Date	Author/Reviewer	Description/Reason for Change
5/4/2021	T Bay/ P Tate	Reviewed for latest revision/updated year/added revision section
3/15/2022	T Bay/ P Tate	Reviewed for latest revision/updated year/added revision section
7/7/2023	T Bay/K Stapp	Reviewed, update year & formatting