



SAM HOUSTON STATE UNIVERSITY

ENVIRONMENTAL HEALTH, SAFETY
& RISK MANAGEMENT

HOT WORK PROGRAM PROCEDURES

I. PURPOSE

The purpose of this program is to provide written procedures and a permit system to prevent fires from Hot Work operations.

References: CFR 1910.252 OSHA General Industry Standards
CFR 1910.352 OSHA Construction Industry Standards

II. SCOPE

This program is applicable to all University employees, contractors and subcontractors performing Hot Work operations on all University properties.

III. DEFINITIONS

1. Hot Work: **Any** maintenance, renovation or construction activity using gas or electrically powered equipment, which produces flames, sparks, or heat that is sufficient to start a fire or ignite flammable or combustible materials. These following specific operations are defined as hot work operations:
 - a. Welding
 - b. Brazing
 - c. Acetylene/Oxygen metal cutting
 - d. Metal grinding and cutting with handheld portable electrical tools
 - e. Open flame soldering
 - f. Open flame pipe thawing
 - g. Torch applied roofing
2. Designated Area: An area where hot work is allowed without the issuing of a hot work permit.
3. Fire Watch: Designated individual who maintains awareness for the presence of fire or hazardous conditions within the hot work area.
4. FSSS: SHSU Fire Safety System Specialists responsible for the maintenance and servicing of University buildings fire alarm systems.
5. Hot Work Operator: Individual performing actual hot work (welder or craftsman).



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6. Hot Work Permit: The record that is required to document Hot Work operations comply with this Procedure.
7. Responsible Supervising Authority: The Hot Work Operator's supervisor, the Project Coordinator, or the General Contractor/Sub-Contractor work site supervisor.

IV. EXCEPTIONS

NOTE: Even though these identified areas do not require a Hot Work Permit, safety and fire prevention shall be ensured during all Hot Work activities.

1. Hot Work Permits are not required in these University areas and operations:
 - a. Facilities Management Welding Shop
 - b. Facilities Management Plumbing Shop
 - c. Facilities Management Automotive Maintenance Shop and adjacent area
 - d. W.R. Harrell Agriculture Engineering Building and adjacent area
 - e. Industrial Technology Building
 - f. Gibb's Ranch Maintenance work shop and adjacent area
 - g. Bearkat Camp Maintenance work shop and adjacent area
 - h. Residence Life Maintenance work shop bench area
 - i. Art Lab C
 - j. New construction and areas under the control of a General Contractor.
 - i. Contractors shall follow their respective company's Hot Work Program
 - ii. In the absence of an established Hot Work Program, the contractor shall follow the SHSU Hot Work Program Procedures, where applicable.
 - k. Educational instructional labs where open flames (Bunsen Burners), pyro-technics, or, chemical reactions used within the course and scope of the instructional lab and under the supervision of faculty and/or graduate assistants.
 - l. Open ground areas on University properties, to include parking lots, where combustible materials and/or adjacent buildings are no closer than 35 feet from the work area.

V. RESPONSIBILITIES

1. The Environmental Health, Safety and Risk Management Department is responsible for the administration of the Hot Work Program, to include revisions or amendments.
2. The Fire and Occupational Health and Safety Coordinator serves as the Technical Advisor in determinations of those areas designated where hot work is allowed without the issuance of a Hot Work Permit.



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3. Hot Work Permit Administrators
 - a. SHSU Facilities Maintenance Foremen are responsible for the issuance of the Hot Work Permit for any hot work performed under their supervision (to include Contractors).
 - i. Responsible for the designation of a Fire Watch during hot work activities and up to 30 minutes after the completion of Hot Work operations.
 - b. SHSU Facilities Planning/Construction and Project Managers are responsible for issuance of the Hot Work Permit for any hot work performed by contractors, where the contractor does not have a written Hot Work Program.
 - i. Responsible for ensuring those areas identified as “New Construction” and under the control of a General Contractor follow established fire safety procedures during Hot Work operations.
 - ii. Responsible for ensuring Contractors designate a Fire Watch during and up to 30 minutes after the completion of Hot Work operations.

VI. HOT WORK PROCEDURES

1. Responsible Supervising Authority
 - a. Prior to the issuance of a Hot Work Permit, the responsible supervising authority shall perform a site specific inspection of the hot work area to:
 - i. Identify the presence of flammable or combustible materials, hazardous processes or other potential fire hazards that may be present.
 - ii. Ensure the removal of flammable or combustible materials from the immediate hot work area.
 - iii. Ensure that appropriate Personal Protective Equipment is available, based on the nature of the hot work, i.e., welding/gas cutting of galvanized metal.
 - iv. Notify the appropriate SHSU Fire Safety System Specialist to verify the building where the hot work will be done is protected by smoke detection devices/fire alarm system, and they are covered/by-passed to prevent activation of the building fire alarm system.

NOTE: At no time shall an entire fire alarm or fire sprinkler system be by-passed or deactivated for Hot Work without prior consultation with EHS&RM.
 - v. Ensure appropriate fire extinguishers are available in the Hot Work area.
 - The building fire extinguishers **shall not** be used for Hot Work fire protection.



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- vi. Ensure a Fire Watch is in attendance (if required) and properly instructed in fire protection procedures.
 - vii. Issue the Hot Work Permit.
2. Hot Work Operator
- a. Prior to the commencement of hot work, the hot work operator shall:
 - i. Ensure all flammable or combustible materials have been removed from the hot work area or relocated to within a thirty-five-foot radius of the work area. If the materials cannot be removed, it shall be shielded (covered) with non-combustible blankets.
 - ii. Verify all cracks, crevices or openings through which hot sparks or slag may enter are covered.
 - iii. Utilize the appropriate Personal Protective Equipment.
 - iv. Verify the availability of fire extinguishers.
 - v. Verify a Hot Work Permit has been issued for the assigned work.
 - vi. Ensure a Fire Watch is in attendance (if required).
3. Fire Watch
- a. Prior to the commencement of Hot Work, the Fire Watch shall:
 - i. Verify an operational fire extinguisher is available.
 - ii. Oversee the area to ensure no fires develop during the Hot Work.
 - iii. Stop the Hot Work if improper or unsafe conditions develop.
 - Hot Work may resume once the improper or unsafe condition has been resolved.
 - iv. Attempt to extinguish an incipient stage fire.
 - If a fire occurs and cannot be extinguished, activate the building fire alarm and notify U.P.D.
 - If Hot Work is being done outside a building or in a remote campus location, notify U.P.D and/or the local fire department.
 - v. Remain in the work area for at least 30 minutes after completion of Hot Work, or until the possibility of a fire occurring from smoldering embers is eliminated.
4. Hot Work Permit Issuance
- a. Hot Work Permit form HWPS-001 shall be utilized for all hot work operations.
 - Hot Work Permits shall only be issued for the day the Hot Work is being conducted and shall not carry over into the next work day.



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- i. The Supervising Authority shall inspect the area prior to the issuance of the Hot Work Permit.
- ii. The Supervising Authority and Hot Work Operator shall complete the Hot Work Permit at the job site and the Permit shall remain with the Operator until the completion of the work.
- iii. The Hot Work Permit shall be returned to the Supervising Authority at the completion of the work or work day.
- iv. The Supervising Authority should electronically file a copy of the Permit with the job Work Order; and forward the original Permit to the Fire & Occupational Health and Safety Coordinator in the EHS&RM Department.
- v. EHS&RM will maintain the Permits in accordance with the Texas State University System/SHSU Records Retention Schedule.

VII. TRAINING

1. The responsible Supervising Authority shall ensure all SHSU employees under their supervision receive initial training before conducting any task that meets the criteria of Hot Work. This training shall include but is not limited to:
 - a. Explanation of the written Hot Work Program
 - b. Hot Work Procedures
 - c. Proper Equipment Operation
 - d. Handling and Storage of Welding Material
 - e. Compressed Gas Cylinder Safety
 - f. Fire Prevention
 - g. Fire Extinguisher Operation
 - h. Hazard Control
 - i. Personal Protective Equipment Selection and Use
 - j. Fire Watch Procedures
2. Training should be documented and entered into the SHSU Human Resources Talent Management System.