

Hot Work Safety Program



Environmental Health, Safety, and Risk Management Department

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SFA Hot Work Safety Program

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I. Introduction

Any operation that generates heat, sparks, or flames is considered Hot Work and thereby subject to compliance with 29 CFR 1910.252, NFPA 51B, The University of Texas System Policy UTS 174 Environmental Health and Safety, SFA Handbook of Operating Procedure 05-508 Fire and Life Safety, and the procedures outlined in this program. Cutting, welding, and other hot work operations present a serious fire hazard to university property and personnel. Fires caused by hot work operations routinely result when sparks or excessive heat come into contact with combustible materials.

II. Purpose

The purpose of this Hot Work Safety Program Manual is to ensure compliance with applicable fire safety codes. Additionally, this program was designed to prevent the outbreak of fire, accidental fire alarm activations, smoke, and nuisance odors in and around SFA buildings resulting from maintenance and repair operations involving the use of open flames and operations that produce heat or sparks. This program also establishes a documented permit and notification process to ensure the work is closely monitored and fire safety precautions are in place.

III. Scope

This program applies to hot work performed by any SFA employee, student, or contractor performing work in or around SFA buildings. This program does not apply to areas specifically designed and equipped for hot work operations such as maintenance shop areas and designed welding areas.

IV. Definitions

Hot Work - Any operation producing flames, sparks, or heat including cutting, welding, brazing, grinding, sawing, torch soldering, torch applied roofing, and similar activities.

Hot Work Permit - A special permit, which authorizes “Hot Work” activities at a specific location and time. The permit will be properly filled out by the appropriate supervisor to authorize the work and ensure fire safety precautions have been taken.

Fire Watch – A trained individual stationed in the hot work area who monitors the work area for fires both during and after hot work. Individuals must be properly trained in the operation of portable fire extinguishers and building fire alarm systems. A fire watch is required when there are combustible materials within 35 feet of the work site that cannot be temporarily relocated and a fire extinguisher must be kept onsite during the duration of the fire watch.

Personal Protective Equipment (PPE) - Equipment designed to protect employees during hazardous work activities including hot work. This includes welding helmets (required for all arc welding), safety glasses or goggles, flame proof screens or shields, welding gloves, flame proof aprons, and other protective clothing deemed necessary by supervisors or EHSRM.

V. Responsibilities

A. Environmental Health, Safety and Risk Management (EHSRM)

1. Maintain the written Hot Work Safety Program,
2. Retain all program records as required by SFA's record retention policy;
3. Assist with hot work safety training; and
4. Periodically inspect hot work operations to ensure compliance.

B. Supervisors

1. Be familiar with hot work procedures described in this manual;
2. Provide proper personal protective equipment (PPE) to employees;
3. Ensure employees or students are trained in and use proper hot work procedures;
4. Make arrangements for a fire watch when there are combustible materials within 35 feet of the work site. When a fire watch is required, the fire watch employee must remain on site for at least 1 hour after the completion of the work to extinguish fires and activate the fire alarm in the event of a fire. Fire watch employees must have a fire extinguisher on-hand and be trained in its proper use;
5. Contact Physical Plant Electronics Shop to coordinate isolating fire alarm devices;
6. Submit a hot work permit prior to the start of any hot work by filling out the online hot work permit form at <http://www.sfasu.edu/safety> or by calling EHSRM at 468-4442.
7. Periodically inspect hot work sites for safe work practices; and
8. Ensure employees conducting the work comply with OSHA 29 CFR 1910.252 and NFPA 51B, Hot Work standards.

C. Employees

1. Complete the required hot work safety training program and comply with all procedures in this manual;
2. Notify your supervisor or EHSRM to obtain a hot work permit before starting the work;
3. Move all combustible materials at least 35 feet away from the work site whenever possible;
4. Use all PPE and equipment in the correct manner; and
5. Do not leave the work area until a fire watch employee is on site, when required, as described above.

D. Contractors

1. Follow all SFA Hot Work Safety Program procedures described in this manual;
2. Follow OSHA 29 CFR 1910.252 and NFPA 51B, Hot Work standards; and
3. Keep a fire extinguisher at the work site and know the location of the fire alarm pull station to be used in the event of a fire.

The following section describes the required Hot Work Permit process.

VI. Hot Work Permit

After a supervisor determines if hot work in or around a campus building is required and approved, the supervisor or employee conducting the work will complete a Hot Work Permit which notifies EHSRM of the type of work, person(s) completing the work, location, planned

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date and time of the event, and fire watch (if applicable). Follow the steps below to submit a Hot Work Permit:

1. Complete all required lines of the online form located in the permit section of the EHSRM webpage: <http://www.sfasu.edu/safety>, then click the submit button which authorizes the work to take place. This will immediately notify EHSRM and complete the permit process.
2. The online form is the preferred method of submitting a permit. However, if the supervisor is unable to complete the online permit form, a paper form may be completed and submitted by email to safety@sfasu.edu or delivered to EHSRM at 430 E. Austin Street Nacogdoches, Texas 75965.

VII. Hot Work Safety

The following sections describes the necessary steps to be taken to ensure safety during and after hot work operations.

Prior to initiating hot work, personnel conducting hot work operations shall:

1. First, seek alternative methods to hot work whenever possible:
 - Search for an equally effective way to join or cut without compromising mechanical integrity.
 - When practical, objects to be welded, cut or heated should be moved to designated safe locations specifically designed and equipped for such operations (maintenance shops and designed welding areas).
 - If there is no alternative to hot work within the area, communicate with supervisors exactly what hot work operations are required and request a Hot Work Permit prior to starting the work.
2. Take special caution to avoid accidental activation of the fire alarm and sprinkler systems;
3. Where welding, cutting, or brazing is done in close proximity to a sprinkler head, a wet rag shall be laid over the head to prevent accidental activation. Be sure to remove the wet rag at the conclusion of the cutting or welding operation;
4. Move all combustible materials at least 35 feet from the work site when possible or properly shield the combustibles from heat and sparks;
5. When combustible materials are located within 35 feet of the work site, a fire watch employee must remain on-site and have a fire extinguisher available for at least one hour after the work has been completed (as required by NFPA 51B). This does not have to be the employee who completed the hot work but must be someone who is trained in the proper use of a fire extinguisher and knows how to activate the fire alarm in the event of a fire.

If hot work is required in a confined space, the employee must be trained in confined space entry. For more information call EHSRM at 468-6034 or see the SFA Confined Space Entry Program at:

http://www.sfasu.edu/safety/documents/2011_Confined_Space_Entry_Plan.pdf.

VIII. Completion of Hot Work

When hot work is completed, personnel conducting the hot work shall:

1. Inspect the work area and any potentially affected surrounding areas for fire, fire damage, or the potential for fire;
2. Coordinate the reactivation of smoke and fire alarm systems disabled because of hot work;
and
3. When a fire watch is required, the employee must stay on-site for at least one hour or until another designated fire watch employee arrives.

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Hot Work Permit

Hot work is any operation that generates heat, sparks, or open flame. This includes welding, soldering, cutting, grinding, torch applied roofing, and similar activities.

This permit is required to be submitted by the supervisor prior to the start of hot work in or around SFA buildings. A permit is not required when the work is conducted in designated shop or laboratory work areas designed for this type of work.

Please fill in all sections below and click the submit button to authorize the work and notify EHSRM.

Date: _____

Timeframe: _____

Location of the hot work (building & room number): _

Employee name of person conducting the work: _____

Supervisor name: _____

Type of hot work:

- Welding
- Soldering
- Cutting
- Roofing
- Other (please describe in comments section below)

Comments:

Safety Checklist:

- Fire extinguisher available.
- Smoke and fire detection devices have been disabled until the work is complete.
- Area within 35 ft. of the work site has been swept to remove debris and any combustible materials have been moved or properly shielded from heat and sparks.
- Explosives, fuels, and compressed gas cylinders have been moved at least 50 ft. away from the work site or properly shielded from heat and sparks.
- A 1-hour fire watch will be provided when combustible materials are located within 35 ft. of the work site.
- Any disabled fire alarm devices will be reactivated upon completion of the hot work.
- I acknowledge that all necessary steps have been taken to prevent fire and accidental activation of the fire alarm. All work will be conducted in compliance with the SFA Hot Work Safety Program.

**Submit completed form by email to: safety@sfasu.edu
or deliver in person to the Safety Department at: 430 East Austin St.**