Code: G-017
Approved: David C. Danahar
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SOUTHWEST MINNESOTA STATE UNIVERSITY

POLICY

HOT WORK PROGRAM POLICY

Background:
Hot Work is welding, oxyacetylene cutting, hot riveting, grinding, chipping, soldering, and other activities that produce sparks or use flame. The portability of the equipment and its use outside areas specifically designed for its safe use can increase the likelihood of fires that damage facilities and interrupt the institution's mission. To ensure that portable cutting, welding, and other hot work for maintenance, construction, or modification is done safely, a permit system is required.

The principal hazard associated with portable hot work equipment is that it introduces unauthorized ignition sources into random areas of the facility. Heat sufficient to start fires or ignite explosive materials may come from a number of sources, including:

1. The open flame of a torch.
2. Metals being welded or cut.
3. Molten slag or metal that flows from the work.
4. Sparks that fly from the work.
5. Improperly handled or improperly applied grounding clamps during arc welding.

The following guidelines shall be followed by all employees and contractors on SMSU's campus during all hot work operations except for those specifically designated for such work such as welding shops located in a maintenance area or instructional areas such as Art Labs, Theatre shops, and Physics shop. The Physical Plant Director or designee shall inspect the area where hot work operations will be performed before a hot work permit is issued. Precautions to be followed before, during, and after the completion of hot work operations are listed in the following guidelines.

All personnel directly involved in the use of and supervision of equipment that is utilized in hot work shall be familiar with the equipment, the hazards of working with the equipment, and the actions required to prevent and to extinguish fires when and if they occur.

Requirements:
The basic precautions for fire prevention in welding or cutting work are:

1. A Hot Work Permit shall be filled out for each hot work job and be kept available at the job site.

2. Fire Hazard Removal. If the object to be welded or cut cannot be moved, all movable fire hazards in the vicinity should be taken to a safe place away from the area (at least 35 feet).

3. Guards/Welding Blankets**.** If the object to be welded or cut cannot be moved, and all fire hazards cannot be moved, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards. Approved welding blankets are to be used to cover combustible materials.

4. Automatic Sprinkler Protection. If hot work operations are to be conducted in a building protected by automatic sprinklers, it must be verified that the sprinkler system is in service before conducting any hot work operations.

5. A Fire Watch shall be continuously present during the entire hot work activity and 30 minutes after completion. In addition, the work area shall be monitored every 30 minutes for 4 hours after the welding and cutting is complete.

6. Restrictions. If the requirements listed above cannot be followed, welding and cutting should not be performed.

Permit Requirements:

1. The Director of Physical Plant or designee shall issue the permits. Permits will only be issued to the individual performing the actual cutting or welding operation.

2. Permits shall be issued and logged on a job-to-job basis. No permits shall be issued for general work in any location. Each specific job shall be issued a separate permit.

3. Once issued, the permit shall be posted in a conspicuous location near the work site so that it may be observed during welding or cutting operations.

4. Permits shall not be approved for any length of time exceeding the normal shift hours of the welder or cutter except:
   a. When welding or cutting operations are planned to be continued into the next shift with the same welder or cutter;
   b. When emergency repair work warrants the continued operation of cutting and/or welding into the next shift.

5. Logs will be maintained to record the issue and retraction of hot work permits. The log shall be kept in such a manner as to identify each permit issued, the time of issue, time of completion, work area, and other necessary information as required.

Authorization:

1. Authorization shall be obtained from the Director of Physical Plant or designee.

2. Authorization shall not be given for hot work operations until all safety precautions and requirements listed on the permit are met. Under no circumstances is a permit to be issued sight unseen. An inspection of the work site must be conducted by the authorizing agent prior to authorization.

3. Authorization shall not be granted for hot work operations if:
   a. The welder or cutter is not properly trained in welding or cutting operations.
   b. Fire Watch is not identified and present at work site.
   c. If welding or cutting equipment is not in proper operating condition and free from defect or damage.
   d. If the authorizing individual feels that the operation may jeopardize the safety and welfare of workers, residents, and/or students and staff in the vicinity of the work.

SMSU Department of Public Safety - Fire Prevention

HOT WORK PERMIT FORM

Instructions: Complete all fields on this form. The Director of Physical Plant or designee must approve form. This form must be in the possession of the HOT WORK Crew until the job is completed, then it must be in the possession of the authorizing agent for at least 48 hours after the job has been completed. This form must be made available to the Fire Department upon request.

IN CASE OF FIRE CALL - 911

Date Permit Valid:	**Start Time:** **End Time:**
Person In Charge:	**Site Telephone Number:**
Address of Work Site:	
Description of Hot Work:	
Business License Number:	**Construction Permit Number:**
Last Fire Extinguisher Training Date for Crew Members:	
Last Torch/Arc Welding Training Date for Crew Members:	

FIRE PREVENTION AND SITE PREPARATION (Check All That Apply)

- ☐ There are no combustibles within 30 feet of the work area.
- ☐ Combustibles within 30 feet of the work area have been shielded from sparks and open flames
- ☐ Exposed combustible wall studs or surfaces have been shielded from sparks and open flames.
- ☐ A suitable Water or Dry Chemical ABC fire extinguisher is within 30 feet of the work area.
- ☐ The work area is clear of debris, shavings, and trash.
- ☐ The Fire Alarm System has been protected to prevent accidental activation
- ☐ Gas Cylinders are not corroded or damaged.
- ☐ Gas Cylinders are properly marked for the material they contain.
- ☐ Gas Cylinder valves are in good condition.
- ☐ Gas Cylinder regulators are in good condition and are working properly
- ☐ Gas Cylinder internal pressures are normal (not over pressurized)
- ☐ Gas Cylinders hydrostatic test period has not expired.
- ☐ Gas hoses are in good shape and properly connected.
- ☐ Torches are properly attached and work properly.
- ☐ Electric Arc welding equipment is in good condition.
- ☐ Electric Arc welding machine is properly grounded.
- ☐ Electric Arc connections fit properly and correctly.
- ☐ Electric Arc electrodes are of the proper type and size for the work.
- ☐ Electric Arc electrode holders are in good condition.
- ☐ Electric Arc wires are not frayed and are in good condition.
- ☐ Personnel using equipment are wearing proper attire for the work selected.
- ☐ The appropriate eye protection is being used by ALL personnel.

Firewatcher:	**Time Started:** **Time Ended:**
Hot Work Permit Authorized By:	**Signed:**
Title:	**Date:**

A Hot Work Permit is required by Section 105 and Chapter 26 of the 2000 International Fire Code, and APPENDIX D15 HOT WORK OPERATIONS of the Minnesota State Colleges and Universities Emergency Plan. For more information contact the University Public Safety located in Founders Hall, Room 007, (507) 537-7252.