

A. PURPOSE AND SCOPE FOR HOT WORK PERMIT PROCESS

1. **PURPOSE:** The purpose of this program is to establish written procedures to prevent fires resulting from any temporary operation involving open flames or producing heat and/or sparks, as required by OSHA 29 CFR 1910.252, 29 CFR 1926.352 and NFPA Standard 51B. This includes, but is not limited to: brazing, cutting, grinding, soldering, thawing pipes, torch applied roofing and welding.
2. **SCOPE:** This program applies to work performed by Berea College employees and contractors performing work in Berea College owned buildings. This program does not apply to areas that are specifically designed and equipped for such operations.

B. Definitions:

Department Supervisors oversee the Hot Work Permit program for hot work operations under their supervision. Supervisors are responsible for designating employees as Permit Authorizing Individuals (PAI), who will issue Hot Work Permits. Any employee who has successfully completed welding and cutting safety and reviewed the Hot Work Safety Program may be a PAI. Hot Work Operators are allowed to be PAI, but they are not allowed to issue their own Hot Work Permits. (Training is available online-Please contact the Environmental Health and Safety Department for more information)

A **Permit Authorizing Individual (PAI)** inspects hot work sites prior to the start of hot work operations using the checklist found on the permit. When a fire watch is required, the PAI will designate an employee to serve as Fire Watch. Once all requirements on the form have been satisfied and the form is signed by a PAI, the document becomes a Hot Work Permit and must be posted in the area where hot work is to be performed.

Hot Work Operators (HWOs) are employees who perform hot work operations. A HWO must always obtain a Hot Work Permit before beginning hot work.

A **Fire Watch** is posted to monitor the safety of hot work operations and watch for fires. Fire Watches are posted by a PAI if the situation requires one, during hot work, and for at least 30 minutes after work has been completed. Any employee who has successfully completed Welding and Cutting Safety and reviewed this program can serve as the Fire Watch.

C. HOT WORK PERMIT PROCEDURES

1. 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 must be moved to a designated safe location.
2. If hot work must be performed, a Hot Work Permit must be obtained before the work begins. The procedure is as follows:
 - a. Workers must inspect the work area for prohibited conditions and have the appropriate PAI fill out the permit.
 - b. Project Managers are responsible for informing contractors of the requirement for Hot Work Permits if required for the project. Contractors may follow their Hot Work Procedures if their procedures are as stringent as the College program.
 - c. Permits will be issued for no more than one week at a time according to the nature of the work being performed. One permit will be issued for each function being performed (for example: one permit would be issued for welding in the area and another permit would be issued for torching a roof in that same area).
 - d. Public Safety and/or Environmental Health and Safety must be notified if it is necessary to de-activate a zone or a detector within the fire alarm system while work is being performed in order to prevent a false alarm. The building fire alarm system will not be disabled.
3. All precautions on the Hot Work Permit must be met before hot work begins.

C. PROHIBITED CONDITIONS

A Hot Work Permit Will Not Be Issued If Any of the Following Exists:

1. Sprinkler protection is impaired in buildings where it is installed
 2. Appropriate firefighting equipment is not readily available;
 3. Combustible or flammable materials are within 35 feet and cannot be moved or protected;
 4. Floor and wall openings cannot be covered;
 5. Flammable and/or explosive vapors or gases are present,
 6. Cutting or welding on pipes or other metals can conduct enough heat to ignite nearby combustible materials;
 7. Any condition exists that could create hazards by performing the work; or
 8. Any area not authorized by management.
4. The Hot Work Permit is good only for the date(s) and time specified on the permit. A copy of the permit must remain at the hot work location. When the hot work is completed, a copy of the permit should be sent to Facilities Management and Environmental Health and Safety for record keeping purposes.
5. All personnel (employees, contractors, building occupants) must be suitably protected against hazards generated by the work - i.e. heat, sparks, fumes, welding rays, etc. This may include, but is not limited to, the use of personal protective equipment, shields, screens, or local exhaust ventilation.
6. A fire watch will be required whenever:
- a. The fire alarm in the work zone has been de-activated during hot work;
 - b. Appreciable combustible material in building contents or construction is closer than 35 feet to the point of operation;
 - c. Appreciable combustibles are more than 35 feet away but are easily ignited by sparks;
 - d. Combustible materials are likely to be ignited by conduction or radiation from metal partitions, roofing or other conductive materials.

D. RESPONSIBILITIES

1. PROJECT MANAGER RESPONSIBILITIES: a. Ensure that supervisors, cutters, welders and employees using other hot work equipment are suitably trained in the operation of the equipment including all safety requirements and hot works procedures;

b. Issue hot work permits and ensure that supervisors, employees and contractors are following the hot work permit program.

c. Establish areas for cutting and welding, i.e. maintenance shops.
2. SUPERVISOR RESPONSIBILITIES:

a. Ensure that a hot work permit is obtained prior to the start of work;

b. Ensure that all cutting and welding equipment is in satisfactory condition and in good repair, and c. Ensure that employees are suitably trained in the operation of the equipment and safe use of the process.
3. EMPLOYEE RESPONSIBILITIES: a. Follow and use hot work procedures;

b. Obtain a hot work permit prior to any work and display at job site;

- c. Ensure that all cutting and welding equipment is in satisfactory condition and in good repair;
- d. Attend and actively participate in training sessions; and
- e. Protect nearby personnel against heat, sparks, etc. when working in occupied buildings.

4. FIREWATCH RESPONSIBILITIES:

- a. Have fire extinguishing equipment readily available (contractors must supply their own fire extinguishers) and be trained to use it;
- b. If a fire occurs, call 911 and try to extinguish it if it is within the capacity of the equipment at hand. Be familiar with the facility and know how to activate the fire alarm system;
- c. Watch for fires in all exposed areas
- d. Maintain fire watch for one half hour after hot work is completed.

5. DEPARTMENT OF ENVIRONMENT, HEALTH AND SAFETY RESPONSIBILITIES:

- a. Retain records of hot work permits issued;
- b. Provide technical assistance as needed;
- c. Provide assistance in training supervisors and employees.

HOT WORK PERMIT

(This form can be printed, filled out, and used as a permit)

The Hot Work Permit is good only for the date(s) and time specified on the permit. A copy of the permit must remain at the hot work location. When hot work is completed, a copy of the permit should be sent to Facilities Management, CPO 2202 and Environmental Health and Safety, CPO 1913

Date Work Begins: _____ Date Work Ends: _____

Nature of Job: _____

Worker(s) Performing Hot Work:

Special Conditions _____

Signature of PAI/Supervisor: _____

Signature of Welder

Signature of Fire Watch

Describe source of ignition (e.g., acetylene torch, soldering, electric arc, etc.):

GENERAL SAFETY

YES NO N/A

- Welder, Fire Watch, and Supervisor familiar with Welding and Cutting Policy.
- Welding and cutting equipment in good working condition.
- Workers fitted with appropriate safety equipment.
- Fire Watch properly trained; knows location of appropriate firefighting equipment.
- Fire Watch knows how to sound fire alarm.
- Fire detection and/or sprinkler system in service.
- Area within 35 feet of work properly swept.
- Combustibles and flammables within 35 feet of work removed or
- Combustibles and flammables protected with appropriate shields.
- Floor and wall openings covered.
- Pipe lines or connections disconnected or blanked.

WORK ON WALLS/CEILINGS

- Areas adjacent to walls being worked on checked for combustibles, and those materials removed.

CONFINED SPACE WORK

- Confined Space Entry Permit required?
- Equipment cleaned of all combustibles.
- Space purged of all flammable vapors and/or gases.

FIRE ALARM SYSTEM IMPAIRMENT

Are there fire alarm devices in area that could be impacted from welding fumes or smoke? If yes, Public Safety and Environmental Health and Safety must be notified of any fire alarm system impairments.

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