

Occupational Health & Safety System	
OHS Standards	Number: WP-13
Hot Work	

PURPOSE

Hot work is any temporary operation involving open flames or producing heat/sparks which includes, but is not limited to brazing, open-flame soldering, oxygen cutting, grinding, arc welding/cutting, oxy-fuel gas welding, hot taps, and torch applied roofing that are capable of initiating fires or explosions. All hot work that involves using an open flame, or which generates sparks, slag or other superheated materials, requires compliance with the following Hot Work Program guidelines and the completion of a Hot Work Permit before commencing work. The guidelines are set up to indicate what each team member is responsible for.

Hot work is potentially dangerous for the following reasons:

- *It provides a source of ignition that could ignite a vapor release from another location*
- *The person doing the hot work may cut through the wrong line or burn a hole in the wrong piece of equipment. This could lead to the release of hazardous chemicals, or cause a fire or explosion*
- *The person doing the work could be burned by the equipment that they are using*
- *In confined spaces, the hot work itself can create a harmful atmosphere, leading to the possibility of a worker being overcome by fumes*

No employee of the College, contractor hired by the College, or subcontractor hired by the contractor shall perform any hot work unless a hot work permit is obtained. In the case of minor hot work, one person may serve in all three capacities. In the more hazardous situations, more than one firewatcher may be required.

Job Site Inspection

Prior to the issuance of the hot work permit, the supervisor shall inspect the job site to determine if the hot work can be avoided. If the hot work involves open flame cutting, an alternative method of conducting the work shall be considered (e.g., hand saw, pipe cutter). If an alternative method is not feasible, the supervisor shall ensure the hot work site is safe. All hot work job sites must be inspected using the checklist contained within the hot work permit. Items included in the job site review include, but are not limited to, the following:

- *The equipment to be used has been inspected for proper operation and is in good repair*
- *Flammable and combustible liquids or materials in the area have been moved / covered / wet down*
- *Appropriate type and number of extinguishers are available on hand*
- *Communications (radio or telephone) are in place to sound the alarm if needed*
- *Fire alarm service interruption has been coordinated, as necessary*

- *Provisions have been made for a fire watch, as necessary*
- *Who will check the area after hours?*
- *All Proper PPE is in place and being used.*

If the aforementioned criteria are not met, a permit shall not be issued until all concerns are corrected or in place.

If there are automatic fire detection devices present in the immediate area that need to be deactivated to prevent alarms, follow normal impairment procedures to ensure reactivation of the system.

Supervisor

1. Supervisor is responsible for all hot work operations and program compliance.
2. Supervisor is responsible for insuring that all persons involved in hot work are properly trained in their functions.
3. Supervisor, or their designate, is responsible for issuing the Hot Work Permit.

Person Performing the Hot Work

1. Person performing the hot work must be trained in their duties and responsibilities.
2. Person performing the hot work is responsible for eliminating all the fire hazards before beginning any hot work.
3. If the object to be worked on cannot be readily moved, all movable fire hazards in the vicinity MUST be moved to a safe place (at least 35 feet from point of operations). If not, guards MUST be used to confine the heat, sparks and slag, and protection provided for the immovable fire hazards. If these precautions cannot be taken, hot work shall NOT be performed.
4. All combustible materials exposed to hot sparks and other hot materials that could drop through floor cracks, or other floor openings, and through openings in walls, windows, and doorways MUST be protected.
5. If sparks or hot materials might be carried through ducts or conveyor systems, these MUST be protected or shut down.
6. All floors MUST be swept clean of all combustible materials within 35 feet of the point of operations. Combustible floors MUST be kept wet, covered with damp sand, or protected by fire resistant shields.

Fire Watchers

1. Fire watchers must be trained in their duties, responsibilities, and extinguishing equipment.
2. Fire watchers MUST have fire extinguishing equipment such as fire extinguishers, hoses, pails of water or sand, etc. on site and readily available.
3. Fire watchers must know where the nearest fire alarm pull station is located.
4. Fire watchers must inspect area before any hot work operations commence to insure that all precautions have been taken.
5. Fire watchers must continue to be on the watch at least ONE hour after all hot work has been completed.
6. Fire watchers will only try to extinguish a fire if obviously within their capacity to do so.

7. Fire watchers **MUST** be provided where more than a minor fire might develop or where:
- a. Appreciable combustible material is within 35 feet of the point of operations.
 - b. Appreciable combustibles more than 35 feet away may be easily ignited by sparks.
 - c. Wall or floor openings within 35 feet expose combustibles in adjacent areas including confined spaces.
 - d. Combustibles could be ignited by conduction or radiation through metal partitions, walls, ceilings or roofs.

The fire watch shall be maintained during all breaks and one hour after completion of the hot work operation in order to detect and extinguish smoldering fires on the floors above, below and adjacent to the hot work site if applicable.

The hot work site shall be monitored for an additional two hours. This method of monitoring shall be determined at the time the hot work permit is issued. A final review shall take place by the supervisor thereafter to ensure the hot work site is free from fire.

The hot work permit shall be signed and retained as a record of the hot work operation.

Permit Posting

The hot work permit is in Triplicate. The White copy shall be posted in a visible location within the hot work site. The Yellow copy will be retained by the supervisor and stored for two years as records. The Pink copy shall be sent to OHS.

Outside Contractors

All Supervisors are responsible for insuring that outside contractors follow hot work procedures when working on the Colleges campuses.

Hot work MUST NOT be done:

- *In unauthorized areas*
- *While sprinkler systems are impaired*
- *In explosive, or potentially explosive, atmospheres inside improperly prepared equipment, or in areas where combustible dusts have accumulated*
- *Near bulk storage of readily ignitable materials such as saw dust, sulfur, baled paper or cotton*
- *In areas near the storage of exposed, readily ignitable materials such as combustibles*
- *In a confined space, until the space has been inspected and determined to be safe. Refer to the Confined Space Program*