



# HOT WORK PROCEDURE

CEHS-PC-S06

This written procedure will be reviewed by the EHS Director when failures or discrepancies indicate that the policy is not adequate.

REVISION	DESCRIPTION OF CHANGE	REVISION EFFECTIVE DATE	REVISION COMPLETED BY: NAME / COMPANY	MANAGER APPROVAL
A	<ul style="list-style-type: none"> <li>Initial program under current EHS Director</li> </ul>	10/2019	Wade Behnke / EHS Director	Mark Crosby

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## 1.0 PURPOSE

- 1.1 The Hot Work Procedure is written to ensure that all spark or excessive heat generating tasks related to construction or maintenance do not increase the risk of accidental fires. In addition, the procedure has been developed to ensure Colby operations comply with applicable OSHA standards in 29 CFR 1910.252, Welding, Cutting, and Brazing.

## 2.0 SCOPE

- 2.1 The procedure applies to all Colby operations considered hot work in any area affiliated with Colby College.
- 2.2 Third party contractors and vendors must also comply with the conditions of the procedure as well as the requirements in Colby's Contractor Safety Handbook.

## 3.0 RESPONSIBILITIES

- 3.1 Responsibilities for oversight and implementation for the Hot Work Procedure are assigned below.
- 3.2 Environmental, Health, and Safety (EHS) Director
- 3.2.1 Oversees the written procedure and ensures Colby complies with the requirements.
  - 3.2.2 Review, sign hot work permits and ensure the necessary precautions are in place as a backup for Facilities Supervisors.
- 3.3 Facilities Trades Supervisor
- 3.3.1 Ensure all staff conducting hot work comply with the procedure and are properly trained.
  - 3.3.2 Review, sign hot work permits and ensure the necessary precautions are in place.
- 3.4 Personnel conducting hot work
- 3.4.1 Comply with the conditions of the procedure and training when conducting hot work.

## 4.0 DEFINITIONS

- 4.1 Hot Work: Any maintenance or construction operation that creates a spark or flame. Examples include but are not limited to:
- Arc welding and related processes
  - Heat treating
  - Torch cutting
  - Metal grinding or cutting
  - Powder driven fasters
  - Pipe sweating or brazing
  - Using spark generating tools

- 4.2** Occupied buildings: For the conditions of hot work, occupied buildings would include any building on campus with residents (full time or temporary) not directly related to the hot work task.
- 4.3** HWP: Hot work permit.

## 5.0 PROCEDURE

- 5.1** Hotwork can be performed under the following three conditions:
- 5.1.1 Designated areas designed for hot work listed in section 5.2.
  - 5.1.2 Without a hot work permit (HWP) provided the conditions in Section 5.3 are met.
  - 5.1.3 Under a hot work permit in occupied buildings or in areas that cannot meet the conditions of Section 5.3.
- 5.2** There are two areas on campus recognized as being specifically designated and/or approved for cutting/welding/brazing, along with other types of hot work. The following areas must be clean and free of flammables and combustibles to meet the requirements:
- 5.2.1 Facilities Maintenance Garage
  - 5.2.2 Facilities Pipe Shop
  - 5.2.3 Outdoor areas with no combustible material within 35 feet (empty parking lots) are generally approved for hot work
- 5.3** If all of the conditions in Section 5.3 below are met, then the hot work activity is exempt from requiring a HWP and fire watch. If all conditions have not been met, a HWP is required, as described in Section 5.4.
- 5.3.1 The hot work task is not being completed in an occupied building.
  - 5.3.2 No appreciable combustible material is located within 35 feet of the primary hot work area.
  - 5.3.3 Combustible materials that cannot be moved may be isolated by means of appropriate shielding or guarding.
  - 5.3.4 Work floors or surfaces must be of non-combustible construction (concrete), or a suitable non-combustible outdoor environment (soil/stone).
  - 5.3.5 Floor surfaces (and the entire hot work area in general) should be well maintained from a housekeeping perspective.
  - 5.3.6 Flammable materials, or empty containers formerly holding flammable materials, must not be stored in the immediate work area (35 feet minimum).
  - 5.3.7 Heavy concentrations of dust, or actual/potential explosive atmospheres (from gases, dusts, vapors, liquids) must not be present (or potentially present) in the immediate work area.

- 5.3.8 Walls and partitions used to isolate an area for hot work must be of non-combustible construction, without holes or openings, and configured to prevent the passage of sparks or slag, etc.
  - 5.3.9 Mechanical local exhaust ventilation will be provided for all cutting/welding/brazing operations conducted inside buildings, where the room space is less than 10,000 cubic feet and/or the room has ceilings less than 16 feet in height.
  - 5.3.10 Visible signage reading “Caution—Hot Work In Progress—Stay Clear” shall be conspicuously posted at entrances to the work area to warn others, and flash shielding will be utilized to protect others as needed against UV radiation.
  - 5.3.11 Safety equipment must be immediately available and depending on the activity could include an emergency eye wash, fire blanket, and properly sized/rated fire extinguishers.
  - 5.3.12 Fire alarms and sprinkler system are fully operational.
- 5.4** A hot work permit (Appendix A) must be completed and approved for all hot work performed in areas not listed in Section 5.2 or meeting the conditions listed in Section 5.3.
- 5.4.1 The purpose of the hot work permit (HWP) is to assess the occupational and fire safety considerations in advance of planned hot work to establish suitable engineering and administrative control measures to reduce fire risks when existing hazards cannot be fully controlled
  - 5.4.2 In addition to the following requirements in 5.3, complete the following steps to obtain and use a HWP:
    - 5.4.2.1 Determine if a HWP is required. Are you performing hot work? If so does it meet the locations/conditions in Section 5.2 or 5.3?
    - 5.4.2.2 Utilize the attached HWP (Appendix A) as a checklist to ensure adequate controls are in place to reduce fire risk to an acceptable level.
    - 5.4.2.3 The trade supervisor responsible for the activity must review and sign the HWP before the activity can start.
    - 5.4.2.4 Ensure fire watch meets the conditions listed in Section 5.4.3. All hot work completed under a HWP at Colby must have a fire watch.
    - 5.4.2.5 A copy of the completed permit must be retained at the worksite for the duration of the activity.
    - 5.4.2.6 Notify Security at 859-5530 and provide location and specifics of the activity before commencing work.
    - 5.4.2.7 Maintain the conditions of the HWP for the duration of the work.

- 5.4.2.8 Upon termination/completion of the hot work, a copy of the permit must be provided to the EHS Director.
- 5.4.3 Fire Watch Criteria
  - 5.4.3.1 Fire watch personnel shall have fire extinguishing equipment readily available and be trained in its use.
  - 5.4.3.2 Fire watch personnel shall be familiar with the facilities and procedures for sounding an alarm and notifying Campus Security in the event of a fire.
  - 5.4.3.3 Fire watch personnel shall watch for fires in all exposed areas, and try to extinguish them only when obviously within the capacity of the equipment available, or otherwise they must sound the alarm immediately and initiate an emergency evacuation.
  - 5.4.3.4 Fire watch personnel may have no other assigned duties during the fire watch period, outside of watching and supporting the hot work permitted activity.
  - 5.4.3.5 A fire watch shall be maintained for a half-hour or as otherwise necessary after completion of hot work permitted activities to detect and extinguish smoldering fires.

## **Appendix A: Hot Work Permit (HWP)**



<b>HOT WORK PERMIT</b> (note permit is valid for one shift only)		
Permit issued to (print):	Fire Watch (print):	
Building/Room	Date/Time of HW:	
Description of task:		
Review Checklist (all controls below must be in place)	Initial Worker	Initial FW
Personnel briefed on safety requirements?		
Floor clean and free of combustibles (35 feet)?		
No flammable liquids or gases in area?		
Combustibles that can't be moved are covered or shielded?		
All floor and wall openings covered?		
Fire protection/suppression devices operational? If disabled notify Security of status.		
Phone or radio available for an emergency?		
Security notified (859-5530) before starting the HW?		
Fire watch has appropriate equipment?		
Signed permit must be maintained at the jobsite		
Additional Controls: _____		
_____		
_____		
_____		
Below to be completed by authorizing supervisor		
Authorized by (print):		
Signed:	Date:	
Addition Requirements provider by Authorizing Supervisor:		

**\*\*When job is complete provide a copy of the permit to the EHS Director**