



# SAFETY PROGRAM

<b>PROGRAM NAME:</b> Hot Work	<b>TEMPORARY REVIEW NUMBER:</b>
<b>CLASSIFICATION:</b> Safety	<b>SUPERSEDES:</b> None
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<b>AUTHORITY:</b>	<b>NEXT REVIEW:</b> July, 2016
<b>APPLICATION:</b> <input type="checkbox"/> Employees Only <input type="checkbox"/> Students Only <input checked="" type="checkbox"/> All College	<b>EFFECTIVE DATE:</b> July 27, 2015
<b>DISTRIBUTION</b> (IDENTIFY AUDIENCE/PUBLICATION): All College: College Website	<b>CUSTODIAN OF PROGRAM:</b> Safety Administrator

**PURPOSE:** To provide guidelines for staff and contractors performing any hot work operations except for those areas specifically designed for such work or exempt activities.

**APPLICABILITY:** St. Cloud Technical & Community College (SCTCC) maintenance staff and contractors.

**INSTRUCTION:** Hot work may be performed without a permit in the following exempt locations: welding lab, automotive lab, maintenance shop, or in emergency situations as outlined in Procedure C below. All other areas require the use of a Hot Work Permit (attached), issued and signed by one of the Facilities Director or designee, prior to the start of any hot work.

**DEFINITIONS:**

Authorizing supervisor – Facilities Director or designee performing the visual inspection of the worksite and completing the permit checklist.

Exempt location or activity - Approved workbench grinders, water sampling techniques, and outdoor hot work that do not come into contact with any combustible building materials are exempt from permit requirements.

Fire hazard - flammable or combustible liquid, solid or gas with a National Fire Rating (NFR) of 3 or 4.

Fire protection - a fire extinguisher rated not less than 2-A:20-B:C must be available in areas where hot work is performed. A fire extinguisher rated not less than 2- A: 1 0- B:C must be

attached to all portable cutting and welding carts and trailers.

Fire watch - 4-hour visual inspection of the area where hot work was performed.

Hot work - Any activity that could produce flames, sparks, slag or other hot fragments that may act as an ignition source to flammable materials in the area, including but not limited to: welding, flame cutting, torch soldering, heat treating, pipe thawing, and grinding. Hot work also includes any activity that could generate sufficient smoke or heat to activate a fire alarm detection system. Any question about what constitutes hot work should be referred to one of the physical plant supervisors before work is attempted.

Hot work in confined spaces - Any hot work done in confined spaces, whether designated permit entry or non-permit entry, must follow permit entry required procedures for confined spaces (see "Confined Space" procedure). The nature of hot work in a confined space creates atmospheric hazards to employee health.

### **PROCEDURES:**

- A. Authorization - Before performing any hot work SCTCC maintenance staff or contractors must request a Hot Work Permit (attached) from the Facilities Director or designee. The Facilities Director or designee will issue all permits.
1. Prior to authorizing a permit, the authorizing supervisor must inspect the work site where the hot work is to be performed. Authorization cannot be given until all safety precautions and requirements listed on the permit are met. Under no circumstances will the authorizing supervisor issue a permit "sight unseen."
  2. The authorizing supervisor will not grant authorization if:
    - a) The worker is not properly trained in hot work operations;
    - b) Fire watch is not identified and available at the work site;
    - c) Hot work equipment is not in proper operating condition and free from defect or damage; or
    - d) The authorizing supervisor determines that the hot work operation may jeopardize the safety and welfare of staff, students, or visitors in the vicinity.
  3. If hot work is to be conducted in a building protected by an automatic fire sprinkler system, the authorizing supervisor must verify that the system is in-service prior to conducting any hot work operations. The presence of an automatic fire sprinkler system does not remove the requirement for a hot work permit.
  4. *Specific requirements*
    - a) Permits must be issued to the individual performing the hot work only.
    - b) Permits will not be approved for any length of time exceeding the normal work shift hours except:
      - 1) When hot work operations are planned to continue in the next shift with the same worker; or
      - 2) When emergency repair work warrants continued operation of hot work into the next shift.
    - c) No permit may be in effect for more than 24 hours.
    - d) Permits must be completely filled out with adequate information. Lack of information may result in disapproval.
    - e) Permits must be issued on a job-to-job basis. No permit may be issued for general work in any location. Each separate job must have a specific separate permit.

5. The authorizing supervisor will give a copy of the permit to the job supervisor and one copy must be posted in a conspicuous location near the work site so that it may be observed during welding, cutting, or heating operations.

B. Hot work operations

1. When practical, workers will move objects to be welded, cut, or treated to a designated safe location. If the objects to be welded, cut, or heated cannot be readily moved, workers will remove all fire hazards in the vicinity to a safe place (at least 35 feet away).
2. If the objects to be welded or cut cannot be moved and all fire hazards in the area cannot be removed to a safe place, workers will use guards to confine the heat, sparks, and slag and to protect the immovable fire hazards. Approved welding blankets must be used to cover all combustible materials to prevent damage.
3. No welding, cutting, or heating is permitted where the application of flammable paints or the presence of other flammable compounds or heavy dust concentrations creates a hazard.
4. If the above requirements cannot be met no welding, cutting, or heating is permitted.
5. All hot work must be completed at least 30 minutes before the workers leave the work site. The workers must perform a continuous fire watch for 30 minutes after completion of all work, documenting the start time of the fire watch on the permit posted in the work area. After the workers depart the worksite, the workers will contact the Facilities Director or designee who may assign a Public Safety Officer Maintenance Person to continue 30 minute fire watch checks for the remainder of the four-hour period.
6. After the final fire watch round, Facilities Director or designee completing the round will confirm the ending time of the fire watch on the permit. The permit may then be removed from the work area and returned to the Facilities Director or designee that issued the permit.

C. Emergency work - in the event of an emergency situation during evenings, weekends, or a holiday, Maintenance Personnel may perform the hot work without a pre-approved permit.

1. The Maintenance Personnel doing the hot work will inspect the work area using the permit checklist.
2. Any work in confined space must be accomplished in accordance with the "Confined Space Entry" procedure and this procedure.
3. The Maintenance Personnel will inform Public Safety of the hot work that was performed.
4. Public Safety will initiate a four (4) hour fire watch in the hot work area.
5. The Maintenance Personnel will inform Facilities Director of any emergency hot work on the first working day following completion of the work.

**REVIEW:** Annually

**ATTACHMENTS:** Hot Work Permit

Double click to open permit in Adobe.

# HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing, and Welding.

## PART A

### INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
2. Complete PLY 1 and retain for job files.
3. Post PLY 2 in vicinity of hot work.

DATE \_\_\_\_\_ JOB NO. \_\_\_\_\_

LOCATION/BUILDING & FLOOR (Be Specific) \_\_\_\_\_

DESCRIPTION OF WORK BEING PERFORMED \_\_\_\_\_

NAME OF PERSON DOING HOT WORK \_\_\_\_\_

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: \_\_\_\_\_  
(Fire Safety Supervisor)

SIGNED: \_\_\_\_\_  
(Person doing Hot Work)

SIGNED: \_\_\_\_\_  
(Fire Watch)

TIME STARTED: Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM

PERMIT EXPIRES: Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM

FILL OUT EMERGENCY INFORMATION ON PAGE 2.

### HOT WORK CHECKLIST

- Sprinklers and hose streams in service/operable.
- Hot Work Equipment in good condition (a.g., power source, welding leads, torches, etc.)
- Multi-purpose fire extinguisher and/or water pump can.

#### REQUIREMENTS WITHIN 35 FEET OF WORK

- Dust, Lint, Debris, Flammable Liquids and oily deposits removed.
- Explosive atmosphere in area eliminated.
- Combustible floors (a.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets.
- Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- All wall and floor openings covered.
- Walkways protected beneath hot work.

#### WORK ON WALLS OR CEILINGS

- Combustibles moved away from other side of wall.

#### WORK IN CONFINED SPACES

- Confined space cleaned of all combustibles (example: grease, oil, flammable vapors).
- Containers purged of flammable liquids/vapors.
- Follow confined space guidelines.

#### FIRE WATCH/HOT WORK AREA MONITORING

- Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

#### OTHER PRECAUTIONS TAKEN

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