

## Ch3-s5-04

## HOT WORK PRACTICE

Responsible Authority:	Director, Facilities Services
Approval Authority:	Senior Team
Date First Approved:	NEW
Date Last Reviewed:	2019-06-26
Mandatory Review Date:	2020-06-26

### PURPOSE

The objective of this practice is to protect the safety of College and contract personnel while conducting any operation that involves the application of heat.

### SCOPE

This College practice applies to all College employees, all contract employees, and other workers conducting operations for the benefit of the College. Fulfilling the requirements of this practice is required for ALL operations involving the application of heat. This applies to all Campuses owned by the College.

### DEFINITIONS

Hot work is defined as any operation that involves the application of heat. Examples of hot work include, but are not limited to, the following operations.

- Gas or electric welding
- Soldering
- Paint stripping using hot air guns
- Lead or pipe work involving brazing and/or the use of blow torches or hot air guns
- General roofing involving the use of tar boilers, lead heaters, or blow torches
- Work involving the use of grinding wheels or cutting disks

### PROCEDURE

This procedure was developed to ensure that the Hot Work will be managed and proper actions are taken to prevent loss due to fire caused by Hot Work (cutting, soldering & welding, explosion or any other activity that involves an open flame). All affected employees and contractors will receive instruction as to the expectations of them to ensure compliance with this policy.

#### Action

#### Responsibility

#### 1.0 Practice

1.1 The College is committed to the safety of its employees, contract workers, and those working at College sites. For these reasons, alternatives to hot work should be explored and adopted, whenever possible, at the initial contracting stage.

1.2 If hot work is to be performed, the Hot Work Permit (see Appendix 1) must be completed. Note that portions of the permit must be completed before the work begins, and portions are completed after the work is

completed.

- 1.3 Submit completed forms in Appendix 1 to the Director of Facilities or Senior Manager of Public Safety and Security
  - 1.3.1 The permit is required on every occasion that hot work of any type is undertaken within or upon the fabric of established buildings or any structures or plant in the open.
  - 1.3.2 The permit is also required for construction sites once fitting out has begun, and to all buildings that are being refurbished.
  - 1.3.3 The person authorising the permit must take into account all other permits in effect in the vicinity, as well as adjacent manufacturing processes that may involve the use of flammable liquids or gases.
- 1.4 The permit is issued for a specific task that is undertaken in a clearly defined area. The permit is issued for a specified period of time. Work must be completed by the end of the time specified.
- 1.5 Before the permit is issued, the person authorising the work must complete the checklist (included in the permit form) relating to fire protection, precautions, and equipment.
- 1.6 If the person authorising the work is not satisfied with the safety of the proposed work or any item on the checklist, further measures may be requested and should be entered in the permit in the appropriate place.
- 1.7 The earliest time at which a final fire check may be made is also specified on the permit. If trained personnel will not be available to make this check (for example, in the case of a permit issued late in the day), work must not begin.
- 1.8 Two copies of the permit must be completed. One copy goes to the person responsible for carrying out the work. The other copy is retained by the issuer, who may wish to inspect or spot-check the site to ensure that conditions have been met and that work is completed by the specified time. At the end of the work and spot-check, the completed form must be returned to the issuer and retained.

## SUPPORTING DOCUMENTATION

Appendix 1 Hot Work Permit

## RELATED POLICIES

Ch4-s4 Public Safety

## RELATED MATERIALS

Ontario Ministry of Labour – Hot Work/Confined Spaces Guidelines

[https://www.labour.gov.on.ca/english/hs/pubs/confined/cs\\_14.php](https://www.labour.gov.on.ca/english/hs/pubs/confined/cs_14.php)

**XX xx: APPENDIX 1**

**HOT WORK PERMIT**

**HOT WORK PERMIT**

**CAN THIS JOB BE DONE WITHOUT HOT WORK, OR IN THE SHOP?  
IF NOT, ENSURE PRECAUTIONS ARE IN PLACE!**

**MAKE SURE SPRINKLERS ARE IN SERVICE AND FIRE EXTINGUISHERS ARE READILY AVAILABLE!**

This Hot Work Permit is required for any operation involving open flames or producing heat and/or sparks. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing Pipe, Torch-Applied Roofing, and Welding.

*Note: The Required Precautions are not optional. They are required for fire-safe hot work. Please explain all "No" responses below.*

**Instructions**

The Permit-Authorizing Individual must:

- Verify precautions listed at right (or do not proceed with the work)
- Complete and retain this page
- Give the second page to the person doing the work.

**Required Precautions Checklist**

Available Sprinklers in Normal Automatic mode and valve open.

Hot Work equipment in good repair.

**Assess 35 ft radial "sphere" of work for potential fire hazards:**

Floors, work level and below, cleaned or protected.

All other combustibles removed or shielded from sparks.

- Clean horizontal surfaces (e.g. building structures, equipment, ducts, cable trays, etc.) above and below where possible.
- Remove flammable liquids, dust, lint, combustible waste, oil deposits, etc., where possible.
- If removal/cleaning is impractical, protect with fire-retardant covers, or shield with fire-retardant guards and/or curtains.

Transmission or conveying of sparks to adjacent areas eliminated or protected.

- Tightly cover wall/floor openings with fire-retardant material.
- Where openings cannot be sealed, suspend fire-retardant tarpaulins to help protect areas beneath.
- Isolate or shut down fans and conveyors to prevent the capturing and conveying sparks to other areas.

Explosive atmosphere eliminated or potential not present.

**Work on walls, ceilings or enclosed equipment:**

Construction materials verified as noncombustible and without combustible covering or insulation.

Combustibles on other side of walls relocated or protected.

Enclosed equipment cleaned and protected from all combustibles.

Containers purged of flammable liquids/vapors.

**Fire watch/hot work area monitoring requirements:**

Continuous fire watch provided during and for *at least 30 minutes* after hot work, including all breaks.

Fire watch supplied with suitable extinguishers/hoses.

Fire watch trained in the use of fire equipment and sounding alarm.

Area to be monitored hourly for a *minimum 6 hours* after job is completed, or longer if required.

**Other precautions that may be required:**

Fire watch provided for adjoining areas, above, or below.

Confined Space or Lock-Out-Tag-Out required/used.

Area smoke or heat detection disabled to eliminate false trip.

Other: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Who, When, and Where?**

**Hot Work Being Done By**

Employee

Contractor

<b>Date</b>	<b>Job/Work Order No.</b>
<b>Location/Building and Floor</b>	
<b>Nature of Job/Object</b>	
<b>Name of Person(s) Doing Hot Work</b>	
I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for work.	
<b>Signature of Permit-Authorizing Individual</b>	

**Permit Expiration**

<b>Expiration Date</b>	<b>Expiration Time</b>	<input type="checkbox"/> AM <input type="checkbox"/> PM
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**Name of Assigned Fire Watch**

\_\_\_\_\_

THIS PERMIT IS GOOD FOR  
24 HOURS ONLY!

## HOT WORK PERMIT

# WARNING!

## HOT WORK IN PROGRESS WATCH FOR FIRE!

**Instructions**

1. Person doing hot work: indicate time started and post permit at hot work location. After hot work, indicate time completed and leave permit posted for Fire Watch.
2. Fire Watch: Prior to leaving area, do final inspection, sign, leave permit posted and notify Permit-Authorizing Individual.
3. Monitor: After 6 hours, do final inspection, sign, and return to designated area.

**Who, When, and Where?**

<b>Hot Work Being Done By</b>	
<input type="checkbox"/> Employee	
<input type="checkbox"/> Contractor	
<b>Date</b>	<b>Job/Work Order No.</b>
<b>Location/Building and Floor</b>	
<b>Nature of Job/Object</b>	
<b>Name of Person(s) Doing Hot Work</b>	
I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for work.	
<b>Signature of Permit-Authorizing Individual</b>	
<b>Time Started</b>	<input type="checkbox"/> AM <input type="checkbox"/> PM
<b>Time Finished</b>	<input type="checkbox"/> AM <input type="checkbox"/> PM
<b>Expiration Date</b>	<b>Expiration Time</b> <input type="checkbox"/> AM <input type="checkbox"/> PM

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

<b>Signature of Fire Watch</b>	<b>Time</b>
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Work area was monitored for a minimum of 6 hours following hot work and found fire safe.

<b>Signature of Monitor</b>	<b>Time</b>
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**Required Precautions Checklist**

*(must be retained as record of hot work activity for 6 months minimum)*

- Available Sprinklers in Normal Automatic mode and valve open.
- Hot Work equipment in good repair.

**Assess 35 ft radial "sphere" of work for potential fire hazards:**

- Floors, work level and below, cleaned or protected.
- All other combustibles removed or shielded from sparks.
  - Clean horizontal surfaces (e.g. building structures, equipment, ducts, cable trays, etc.) above and below where possible.
  - Remove flammable liquids, dust, lint, combustible waste, oil deposits, etc., where possible.
  - If removal/cleaning is impractical, protect with fire-retardant covers, or shield with fire-retardant guards and/or curtains.
- Transmission or conveying of sparks to adjacent areas eliminated or protected.
  - Tightly cover wall/floor openings with fire-retardant material.
  - Where openings cannot be sealed, suspend fire-retardant tarpaulins to help protect areas beneath.
  - Isolate or shut down fans and conveyors to prevent the capturing and conveying sparks to other areas.
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**Other precautions that may be required:**

- Fire watch provided for adjoining areas, above, or below.
- Confined Space or Lock-Out-Tag-Out required/used.
- Area smoke or heat detection disabled to eliminate false trip.

Other: \_\_\_\_\_

Comments:

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# WARNING!

**HOT WORK IN PROGRESS  
WATCH FOR FIRE!**

IN CASE OF EMERGENCY:

CALL: \_\_\_\_\_

AT: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# WARNING!

**FIRE WATCH/MONITOR RECORD**

Checked by (initials)	Date	Time	Checked by (initials)	Date	Time