

The University of British Columbia Okanagan		Hot Work and Dust Program	
Work Procedure		03-08	
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1.0 Policy:

The purpose of the University of British Columbia Okanagan Hot Work policy is to protect personnel and property from a fire caused by hot work. The UBC Okanagan Hot Work procedure defines the responsibilities and requirements for performing hot work and establishes controls through the use of a hot work permit.

This procedure establishes the means to assess the work area and the planned hot work activity to ensure sufficient and necessary controls are in place to prevent a fire. Hot work will only be performed in areas that are or have been made fire safe. Where fire prevention precautions, such as a fire suppression system or a fire or smoke detection system, are not sufficient a fire watch person shall be assigned to monitor the area for fire, as needed.

2.0 Reference:

- BC Fire Code 2012, Division B, Section 5.2: Hot Works
- BC Fire Code 2012, Division B, Section 6.2: Portable Extinguishers
- CSA W117.2: "Safety in Welding, Cutting, and Allied Processes"

3.0 Definitions

Hot Work and Dust - Refers to work that involves open flames or work that produces heat, sparks or dust that will affect the fire alarm system. Such operations include but are not limited to welding, soldering, brazing, cutting, coring, grinding, adhesive bonding, thermal spraying, riveting, chipping, soldering, and thawing pipes.

Hot Worker - Person performing the hot work

Permit - a document used to request approval to proceed with hot work and identify necessary fire precautions. The permit is posted at the workplace during the work process and remains posted until the fire watch is completed. The Hot Worker must be able to produce this permit on demand.

Fire Watch - Monitoring the work area during and after the hot work to identify fire hazards and respond appropriately. A person trained in the use of fire suppression equipment and alarm activation is qualified to perform the fire watch. Fire suppression equipment and a means of communication must be immediately available during a fire watch. This person may not be assigned to any other task and will not be doing the actual hot work.

4.0 Scope

- 4.1 The Hot Work and Dust Program applies to all UBC Okanagan employees, contractors, and subcontractors. Permits are required for all temporary operations involving open flames or producing heat, smoke, sparks or dust.
- 4.2 Permits are required for all operations that suspend or affect the operation of the fire alarm system.
- 4.3 Exception: Hot work permits are not required for work conducted in designated welding areas or shops. A hot work permit is also not required for normal laboratory operations. These areas are subject to a workplace inspection program that includes the assessment of fire hazards and control measures.

5.0 Responsibilities

5.1 Responsible Supervisor (University employee / Project Manager)

- 5.1.1 Inform employees and contractors of the UBC Okanagan Hot Work and Program work procedure.
- 5.1.2 Initiate request for permit and provide worker with approved hot work permit.
- 5.1.3 Ensure hot work permits are completed for all Hot Work.
- 5.1.4 Evaluate in cooperation with Facilities Management (FM) and Risk Management Services (RMS) the work to be performed and identify required precautions (including fire watch) on the hot work permit.
- 5.1.5 Inspect the hot work area and sign off on the permit that all requirements have been met.
- 5.1.6 Assign a competent fire watch person to the hot work job/task if required.
- 5.1.7 Forward hot work permit to FM and RMS at least 2 days prior to commencing the hot work.
- 5.1.8 Forward a final copy of the hot work permit to FM & RMS (including signatures required for fire watch after completing the hot work) immediately after completion of project/fire watch.

5.2 Hot Worker (Employees, contractors, and sub-contractors)

- 5.2.1 Complete the Hot Work permit and forward to the responsible supervisor.
- 5.2.2 Post the approved Hot Work permit at the location of the hot work.
- 5.2.3 Conduct hot work in accordance with UBC O requirements including but not limited to providing a 10 pound fire extinguisher and be trained in its use and how to activate the building fire alarm system.
- 5.2.4 Report any accident/incident immediately to supervisor and Campus Security at 250-807-8111.
- 5.2.5 Fill out the appropriate portions of the permit upon completion of work.

5.3 Fire Watch

- 5.3.1 Monitor the area where hot work is occurring during and after the hot work has been completed. Fire Watch must be provided for a minimum of 60 minutes.
- 5.3.2 Periodic monitoring for 4 hours at the completion of the work is required.
- 5.3.3 A final inspection of the hot work area must be completed 4 hours after completion of the work by the Responsible Supervisor who then signs off on the permit.

5.4 Facilities Management (FM)

- 5.4.1 Review hot work applications within 2 days.
- 5.4.2 Acknowledge receipt of the permit (approve, or provide comments) and if no action required, indicate this to the responsible supervisor.
- 5.4.3 Make the necessary modifications to the fire alarm system based on information supplied in hot work permits.
- 5.4.4 Ensure temporary modifications to the fire alarm system are restored to normal operations once hot work is performed.

5.5 Risk Management Services (RMS)

- 5.5.1 Inspect hot work jobs, tasks as appropriate.
- 5.5.2 Evaluate completed hot works permits.
- 5.5.3 Aid in the determination of the fire watch requirements.
- 5.5.4 Provide training in the hot work permit system.
- 5.5.5 Review the hot work permit system in conjunction with FM and continually improve the program.

6.0 Procedure

- 6.1 Responsible Supervisor to obtain hot work permit from FM.
- 6.2 A competent Hot Worker must complete the applicable hot work permit sections prior to conducting hot work and submit to Responsible Supervisor (Part 1 and relevant sections of Part 2 of permit).
- 6.3 The Responsible Supervisor forwards the completed permit to FM via drop-off, campus mail (ADM 006) or e-mail (facilities.ok@ubc.ca), and RMS via drop-off, campus mail (LIB 018) or e-mail (riskmanagement.ok@ubc.ca).
- 6.4 Facilities Management evaluates the work to be performed, approves, (or does not approve and sends back to Responsible Supervisor with comments) and implements temporary alarm system modifications, as required (Completes Part 4).

The permit must be submitted at least 2 working days before conducting the hot work to allow Facilities Management to evaluate the system involved. The Hot Worker must receive verification of any system modifications before the hot work proceeds.

- 6.5 RMS must be informed but is not required to approve hot work permits. They will evaluate the permit, and inspect worksites as necessary.

- 6.6 The Hot Worker or supervisor posts the hot work permit that identifies start time and emergency contact information. The hot work is conducted according to permit.
- 6.7 Upon completion of the hot work, the worker indicates the completion time on the permit, the completion of the required fire watch period, and submits to the Responsible Supervisor.
- 6.8 Upon completion of the hot work, the Responsible Supervisor requests that Facilities Management reactivates or restores the affected fire alarm systems as necessary.
- 6.9 The Responsible Supervisor forwards the completed hot work permit to FM via drop-off, campus mail (ADM 006) or e-mail (facilities.ok@ubc.ca), and RMS via drop-off, campus mail (LIB 018) or e-mail (riskmanagement.ok@ubc.ca) immediately after project completion/fire watch (Part 3).

Hot work projects must be completed during regular business hours (8am and 4pm, 7 days a week). If Facilities Management is required to reactivate or restore the affected fire system outside regular business hours, special permission must be obtained from a Manager of Facilities Management prior to the commencement of the project.

7.0 Emergency Hot Work

In case of emergency, UBC Okanagan recognizes that a two working day notification may be unreasonable. However, a hot work permit complete with the checklist and signatures must still be forwarded to both Facilities Management and RMS as soon as reasonably practicable.

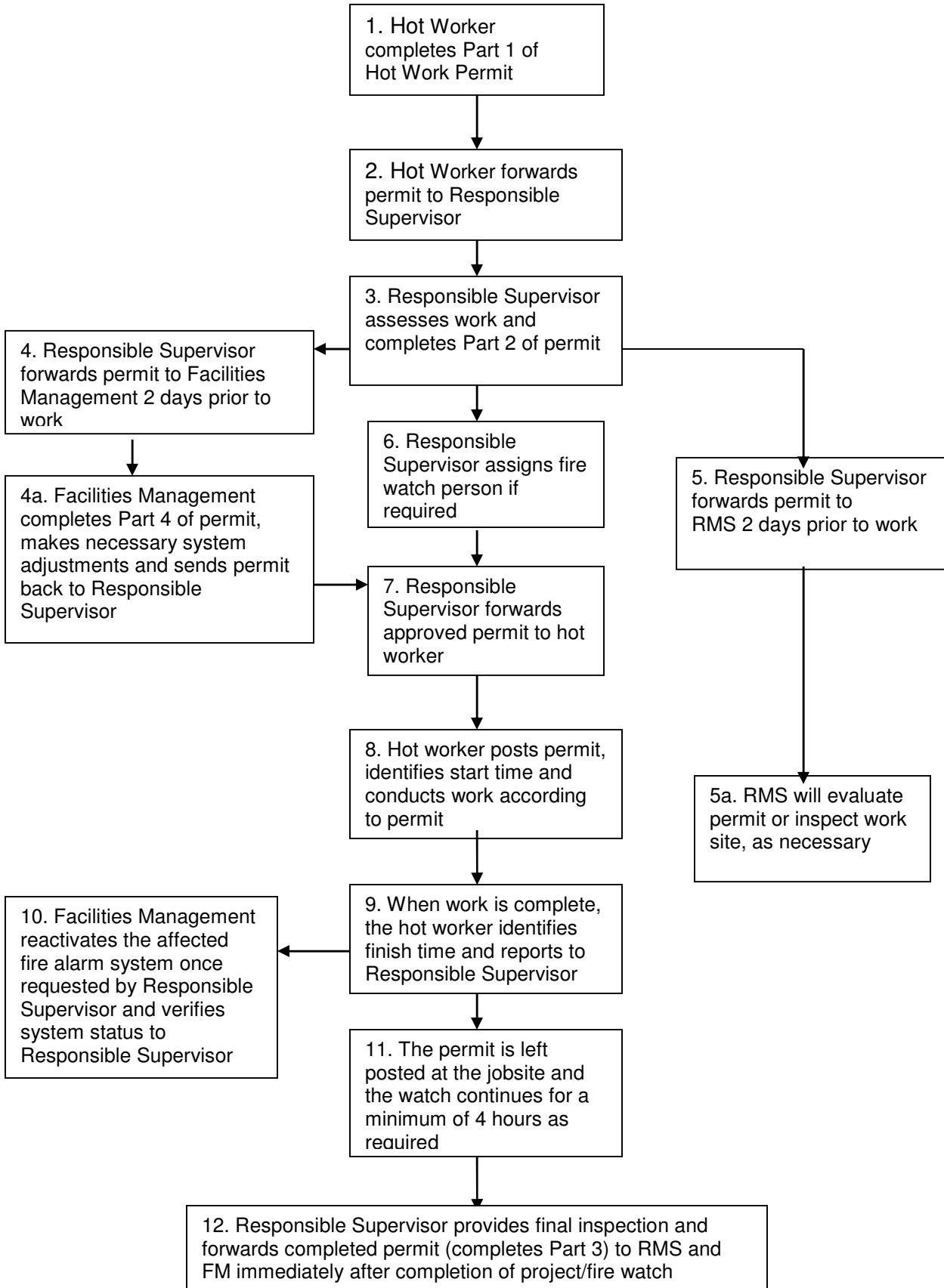
8.0 Determination of Fire Watch

A fire watch is required for the hot work permit if ANY of the following conditions exist:

- Facilities Management or RMS has indicated a fire watch is required.
- Any flammable or combustibles are located within 15 metres (BC Fire Code requires that these materials be protected against ignition).
- The hot work is being done in an area where flammable and combustibles are located more than 15 metres away, but could easily be ignited by sparks.
- Where there is a possibility of sparks leaking onto combustible materials in areas adjacent to the area where the hot work is carried out (openings in walls, floors or ceilings shall be covered or closed to prevent the passage of sparks to such adjacent areas).
- Conditions change during the course of the hot work that increases the risk of fire.
- Required by BC Fire Code.

If you are unsure if your project requires a fire watch, please forward a description (in writing) of the hot work to be completed to Facilities Management and RMS. Please ensure that you submit this a minimum of 2 working days prior to your work start date for Facilities Management and RMS to evaluate your project.

HOT WORK PROCEDURE



HOT WORK PERMIT

This hot work permit is required for any temporary 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.

PART 1: INFORMATION & CONTACTS

Project/Job # _____

Employee Contractor Company Name _____

Location/Building/Floor of Hot Work _____

Nature of Job _____

Date and time of Hot Work _____

**IN CASE OF
EMERGENCY
Campus Security
250-807-8111**

I have read and understand UBC Okanagan's Hot Work and Dust Work Procedure and will ensure all requirements are met

Name of Hot Worker _____ Signature _____

Responsible Supervisor _____ Phone: _____

PART 2: SAFETY CHECKLIST

Hot Worker (Person Performing the Work)

I have completed the required safety checklist on the backside of this permit, added any additional precautions necessary and have fulfilled all the requirements as they relate to this permit

Yes No

Supervisor (Responsible Supervisor)

Name of Fire Watch Person _____ Phone _____

This area is safe for entry and work as outlined above and I authorize this work

Name _____ Emergency Phone Number (hm/cel) _____

Date/Time _____ Signature _____

PART 3: FIRE WATCH

To be completed and submitted to Facilities Management after fire watch is conducted

Time hot work began _____ Time hot work ended _____

Fire Watch Signoff: the work area and all adjacent areas to which sparks and heat might have spread (such as floors above and below and on opposite side of walls) were inspected after the work was completed and were found firesafe.

Fire Watch for 60 minutes after completion of work **YES**
Periodic monitoring for 4 hours after completion of work **YES**
Final check of area 4 hours after completion of work **YES**

Name Phone Date/Time

PART 4: APPROVAL

Facilities Management Use beyond this point

APPROVED NOT APPROVED

Permit Expires (date/time) _____

Conditions _____

CHECKLIST

MUST BE COMPLETED PRIOR TO SUBMISSION OF PERMIT FOR APPROVAL

YES	NO	N/A	
			General Requirements
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Available sprinklers, hose streams & extinguishers are in service/operable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hot work equipment in good repair
			Requirements within 7 metres of work
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flammable liquids, dust, lint and oily deposits removed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Explosive atmosphere in area eliminated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floors swept clean
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Combustible floors wet down, covered with damp sand or fire-resistive tarpaulins or metal shields
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All wall and floor openings covered
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire-resistive tarpaulins suspended beneath work
			Work on Walls and Ceilings
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction is non-combustible and without combustible covering or insulation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Combustibles on other side of walls is moved away
			Work on Enclosed Equipment
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enclosed equipment cleaned of all combustibles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containers purged of flammable liquids/vapours
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pressurized vessels, piping and equipment removed from service, isolated & vented
			Fire Watch / Hot Work Area Monitoring
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire watch to be provided during and for 60 minutes after completion of work
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final check will be completed 4 hours after completion of work
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire watch is supplied with suitable extinguishers specific for fire watch
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire watch is trained in the use of equipment, sounding alarm and calling Campus Security

Other precautions taken: