



**University of Vermont
Department of Physical Plant
Burlington, Vermont**

HOT WORK PERMIT PROGRAM

**REVISED AND DISTRIBUTED BY:
THE UNIVERSITY OF VERMONT
DEPARTMENT OF PHYSICAL PLANT
TRAINING & COMPLIANCE OFFICE**

TABLE OF CONTENTS

CONTACT PHONE NUMBERS	2
PURPOSE	3
SCOPE	3
RESPONSIBILITIES	3
HOT WORK PROCEDURES	6
RECORD KEEPING	8
APPENDIX A “Hot Work Permit”	9

HOT WORK PERMIT PHONE NUMBERS:

The following people are authorized to give out **HOT WORK PERMITS**. Phone calls should be made in the order of this list. Call the **Physical Plant Life Safety Programs Office** first at **656-4341**. A **Life Safety Technician** will then be dispatched to your site. If there is no answer at the **Life Safety Programs Office**, proceed down the list until you contact one of us.

Be prepared to give the **Work Order** that you are working off, location, and time that you will need the inspection.

All questions and concerns should be addressed to the **Life Safety Programs Office**.

UVM Project Manager is responsible to ensure the **Final Sign-Off** of the Permit and forward the hard copy of the Permit to the **Life Safety Programs Office** in a timely manner.

Name	Hours	Office	Cell Phone	Home
Life Safety Office	Mon - Fri 6 - 3:30	656 - 4341		
Gary Campagna	Mon - Fri 6 - 2:30		316 - 1856	
Chris Gebo	Mon - Fri 6 - 2:30		316 - 1997	877 - 6885
David Barch	Mon - Fri 7 - 3:30		922 - 0096	862 - 3204
Jeremy Steele	Sun - Thu 7 - 3:30		233 - 6912	482 - 3898
Edward Waite	Tue - Sat 7 - 3:30		233 - 5981	482 - 6197
John Marcus	Mon - Fri 8:30 - 4:30	656-8249	316 - 9565	899-3477
Off Hours			316 - 7327	

Off hour phone is monitored from 3:30pm to 7:00am every day.

1.0 PURPOSE

The purpose of this policy is to prevent any fires that may result from “hot work” processes.

1.1 SCOPE

1.2.1. For the purposes of this policy, “hot work” is defined as any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to, grinding, cutting, brazing, soldering, thawing frozen pipes by torch, torch applied roofing and welding.

1.2.2. This policy applies to all personnel (including contractors) who are involved with construction and maintenance activities and/or who may be involved in “hot work” activities at any University of Vermont site.

1.2.3. If the hot work can be performed outside the facility, a hot work permit will not be required. However, if hot work is performed inside of a facility or on the roof of a building, then a hot work permit is required and must be approved prior to the start of work.

2.0 RESPONSIBILITIES

2.1 The ultimate responsibility and authority for compliance with the UVM Hot Work Permit program rest with the Departmental Managers. It is their responsibility to ensure that the hot work permit program is carried out within their area of authority.

2.2 Supervisors, Project Coordinators, and Project Managers (Hot Work Permit Authority) who have supervisory responsibility play a key role in the hot work permit program. It is their responsibility to ensure that:

2.2.1 Individuals working under their direction are trained and understand the applicable provisions of the hot work program and that all requirements of any hot work permit are fulfilled before work is performed.

2.2.2 An approved Hot Work Permit is obtained from the Life Safety Program Office (LSO). A copy of the Hot Work Permit is returned to the LSO upon completion of the work.

2.2.3 Properly trained fire watches are required when performing hot work.

2.3 Hot Work Site Pre- Inspection

2.3.1 A pre-inspection of the area where work is to be done is the responsibility of the individual having supervisory responsibility. This is required to:

- Assess the risks associated with the work area (i.e. whether the work area is cluttered, houses combustible materials or flammable liquids).
- Determine whether additional safeguards may be required.

2.4 Individuals Performing Hot Work - Individuals performing the hot work play what is perhaps the most important role in the program they are responsible for:

2.4.1 Obtaining written approval from the appropriate supervisory personnel for the hot work to be conducted on UVM property or from their supervisor for hot work conducted in shop areas.

2.4.2 Ensuring that conditions are safe before commencing the hot work.

2.4.3 Ensuring that the hot work permit is posted in a conspicuous area at the work site.

2.4.4 Being prepared to contact supervisory personnel should conditions change or warrant reassessment during the hot work project.

2.3.4 Using appropriate personal protective equipment (PPE) while performing hot work (welding helmets, gloves, jackets, etc.)

2.4.5 Completing the appropriate section(s) of the hot work permit.

2.5 Firewatchers are responsible for:

2.5.1 Being aware of the inherent hazards involved in the hot work.

2.5.2 Ensuring that safe conditions are maintained during the hot work

2.5.3 Ensuring that appropriate fire extinguishers are readily available.

2.5.4 Knowing how to report a fire or other emergency situation.

2.5.5 Maintaining the watch for at least 30 minutes after the work is completed.

2.5.6 Using the appropriate PPE.

2.5.7 Completion of the appropriate section of the hot work permit.

2.5.8 Returning the completed hot work permit to the Life Safety Program Office.

2.6 Managers shall recognize their responsibility for the safe usage of cutting and welding and other spark or flame producing equipment and shall be responsible for:

2.6.1 Establishing designated areas for hot work operations where the potential fire danger is limited.

- Areas need to be clearly marked as designated hot work zones.
- Areas must conform to the requirements specified in the University's hot work permit.
- Designated areas must be approved by the University's Life Safety Program Office, or the University's Fire Marshal.
- Each area will be inspected monthly by the Life Safety Group. Deficiencies, if found, will be noted and communicated to the area supervisor. Work in the designated area will stop until all deficiencies are corrected.

2.6.2 Establishing procedures for hot work in other areas.

2.6.3 Designating at least one trained individual responsible for authorizing (i.e., issuing) the hot work permit in areas not specifically designed for such operations.

2.6.4 Requiring supervisors and employees performing hot work to be suitably trained in the safe operation of the equipment.

2.6.5 Advising all contractors and employees about flammable materials or hazardous conditions of which they may not be aware in areas where they will be working.

2.7 Supervisors and project coordinators are responsible for:

2.7.1 Maintaining cutting or welding equipment in a safe operation condition.

2.7.2 Issuing a Hot Work Permit for any cutting, welding, brazing, torch soldering, grinding or open flame, heat or spark producing operations occurring outside of the designated area(s).

2.7.3 Ensuring the precautions listed on the Hot Work Permit are understood by the person(s) performing the permitted cutting, welding or brazing operations.

2.7.4 Informing outside contractors and service personnel of the expectation that they will follow all OSHA and UVM requirements.

2.7.5 Verifying that outside contractors have a Hot Work Permit if one is required for the work being conducted.

3.0 HOT WORK PROCEDURES

3.4 Hot Work Permit Forms. The UVM Hot Work Permit located in Appendix A shall be the permit system of choice.

3.5 Prior to Hot Work several tasks shall be performed. These include, but are not limited to:

3.5.1 Inspect the hot work area to identify any fire hazards.

3.5.2 Remove all flammable or combustible materials to an appropriate distance for the activity being performed whenever possible.

3.5.3 Properly shield combustibles that cannot be removed from the area with non-combustible materials.

3.5.4 Seal all cracks and openings through which hot sparks or slag may enter. As an alternate means, a fire resistant shield may be used to block the openings.

3.5.5 Sweep floor of all loose combustible debris.

3.5.6 Placing non-combustible or flame screens so as to protect personnel in adjacent work areas from heat, flames, radiant energy and welding splatter.

3.5.7 Protect conveyer systems that may carry sparks of slag to other parts of the building.

3.5.8 Mark the area so as to warn nearby personnel of the activity being performed.

3.5.9 Cover sprinkler heads directly above the hot work area with wet rags or other non-combustible materials so they will not be triggered during the work.

3.5.10 Isolate smoke detectors at planned work area or cover smoke detectors located in close proximity of the work area.

3.6 During Hot Work there are other precautions that must be taken:

3.6.1 Appropriate fire extinguishing equipment shall be maintained in close proximity to the hot work for its entire duration, plus 30 minutes.

3.6.2 Combustible floors shall be protected or kept wet during the hot work.

3.6.3 Store acetylene and other fuel cylinders in a secure and upright position.

3.6.4 Place hoses so that they will not be crushed or damaged.

3.7 Additional responsibilities that must be undertaken after hot work is completed:

3.7.1 The firewatch shall be maintained for at least 30 minutes following the completion of the hot work.

3.7.2 Fire extinguishing equipment must remain accessible in the area until the firewatch is secured.

3.7.3 Remove any covers from sprinkler heads immediately upon completion of the hot work.

3.7.4 Reinstate smoke detectors.

3.7.5 Remove caution signs.

3.7.6 Completion of the appropriate section (s) of the hot work permit and the return of the completed form to the supervisor and the Life Safety Program Office.

3.8 Extra Caution Must be Used:

3.8.1 On metal walls, ceilings or roofs built of composite, combustibles and sandwich-type panel construction or having combustible coverings

- The person performing the firewatch must verify any foam insulation is not compromised or exposed. Also, any combustible material that was contacted must be thoroughly inspected to ensure it will not ignite.

3.8.2 On pipes that are in contact with combustible walls, ceilings, roofs or partitions where heat by conduction can cause ignition

- The person performing the firewatch must routinely verify the contact point is staying cool, and will not ignite.

3.9 Prohibited Hot Work Areas

3.9.1 Areas equipped with sprinkler systems that are out of order.

3.9.2 Areas, including those with confined spaces, where atmospheres of explosive gases, vapors, or dusts exist or could accumulate.

3.9.3 On containers where flammable liquids, solids or vapors may be present.

4.0 RECORD KEEPING

4.4.1 Hot Work Permits

All hot work permits shall be returned to the Life Safety Program Office for their record retention. Records of hot work permits shall be maintained for one calendar year. Hot work permits on file should be reviewed for program improvement or modification purposes prior to disposal.

4.4.2 Training

Copies of records of all program related training should be maintained in the department personnel files. Copies of training records should be sent to the Training & Compliance Office.

Attachment A Hot Work Permit

377734-3

HOT WORK PERMIT

**BEFORE INITIATING HOT WORK, CAN THIS JOB BE AVOIDED?
IS THERE A SAFER WAY?**

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, Torch Applied Roofing and Welding.

INSTRUCTIONS	PART 1 REQUIRED PRECAUTIONS CHECKLIST				
<p>1. Firesafety supervisor:</p> <p>A. Verify precautions listed at right (or do not proceed with the work).</p> <p>B. Complete and retain Part 1. (Part 1A is a copy for expanded hot work awareness).</p> <p>C. Issue Part 2 to person doing job.</p> <p>HOT WORK BEING DONE BY</p> <p><input type="checkbox"/> EMPLOYEE</p> <p><input type="checkbox"/> CONTRACTOR</p> <p>DATE _____ JOB NUMBER _____</p> <p>LOCATION/BUILDING AND FLOOR _____</p> <p>NATURE OF JOB _____</p> <p>NAME OF PERSON DOING HOT WORK _____</p> <p>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 this work.</p> <p>SIGNED (Firesafety Supervisor/Operations Supervisor) _____</p>	<div style="float: right; border: 1px solid black; padding: 5px; writing-mode: vertical-rl; transform: rotate(180deg);">2457386</div> <p><input type="checkbox"/> Available sprinklers, hose streams and extinguishers are in service/operable.</p> <p><input type="checkbox"/> Hot Work equipment in good repair.</p> <p>Requirements within 35 ft (11 m) of work</p> <p><input type="checkbox"/> Flammable liquids, dust, fat and oily deposits removed.</p> <p><input type="checkbox"/> Explosive atmosphere in area eliminated.</p> <p><input type="checkbox"/> Floors swept clean.</p> <p><input type="checkbox"/> Combustible floors wet down, covered with damp sand or fire-resistant sheets.</p> <p><input type="checkbox"/> Remove other combustibles where possible. Otherwise protect with fire-resistant tarpaulins or metal shields.</p> <p><input type="checkbox"/> All wall and floor openings covered.</p> <p><input type="checkbox"/> Fire-resistant tarpaulins suspended beneath work.</p> <p><input type="checkbox"/> Protect or shut down ducts and conveyors that might carry sparks to distant combustibles.</p> <p>Work on walls, ceilings or roofs</p> <p><input type="checkbox"/> Construction is noncombustible and without combustible covering or insulation.</p> <p><input type="checkbox"/> Combustibles on other side of walls, ceilings or roofs are moved away.</p> <p>Work on enclosed equipment</p> <p><input type="checkbox"/> Enclosed equipment cleaned of all combustibles.</p> <p><input type="checkbox"/> Containers purged of flammable liquids/vapors.</p> <p><input type="checkbox"/> Pressurized vessels, piping and equipment removed from service, isolated and vented.</p> <p>Fire watch/Hot Work area monitoring</p> <p><input type="checkbox"/> Fire watch will be provided during and for 60 minutes after work, including any coffee or lunch breaks.</p> <p><input type="checkbox"/> Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.</p> <p><input type="checkbox"/> Fire watch is trained in use of equipment and in sounding alarm.</p> <p><input type="checkbox"/> Fire watch may be required in adjoining areas, above and below.</p> <p><input type="checkbox"/> Monitor Hot Work area for 4 hours after job is completed.</p> <p>Other Precautions Taken:</p> <p><input type="checkbox"/> _____</p>				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">PERMIT EXPIRES</td> <td style="width: 20%; text-align: center;">DATE</td> <td style="width: 20%; text-align: center;">TIME</td> <td style="width: 30%; text-align: center;">AM PM</td> </tr> </table>	PERMIT EXPIRES	DATE	TIME	AM PM	
PERMIT EXPIRES	DATE	TIME	AM PM		
<p>NOTE: EMERGENCY NOTIFICATION ON BACK OF FORM. USE AS APPROPRIATE FOR YOUR FACILITY.</p>					
<p style="font-size: small;">F2630 REV. 2/83 ENGINEERING PRINTED IN USA ©COPYRIGHT 2003 Factory Mutual Insurance Company All rights reserved.</p>					