



HUMBOLDT STATE UNIVERSITY

HOT WORK PERMIT PROGRAM

Injury & Illness Prevention Plan

Environmental Health & Safety



7/1/2011



HOT WORK PERMIT PROGRAM HUMBOLDT STATE UNIVERSITY

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1.0 Purpose

To provide written procedures to prevent the outbreak of fire, fire alarm activations or smoke and odor migration in buildings resulting from any temporary operation that involves the use of open flames or produces heat and/or sparks. These operations include, but are not limited to: welding, brazing, grinding, cutting, torch soldering, thawing pipes, and torch applied roofing.

2.0 Scope / Applicability

This procedure applies to work performed by any University employee or student performing work in existing buildings, new construction in existing buildings or new construction attached to existing buildings.

This procedure does not apply to work outdoors, however necessary precautions should be taken to ensure combustible materials have been cleared and the risk of fire has been eliminated.

This procedure does not apply to new construction where there is no attachment to existing buildings or to areas that are specifically designed and equipped for such operations, i.e. maintenance shop areas and designated welding areas.

3.0 Authority / References

National Fire Protection Association Standard 51B "Hot Work Guidelines."

International Fire Code 2003 Edition Chapter 26 "Welding and other Hot Work."

California fire Code, Title 24, Chapter 26 sections 2601 et. seq. "Welding and Other Hot Work."

4.0 Definitions

Hot Work: Any operation producing flames, sparks or heat including cutting, welding, brazing, grinding, sawing, torch soldering, thawing frozen pipes, applying roof covering etc.

Hot Work Permit: A permit, which authorizes “Hot Work” activities at a specific location and time. The permit must be properly filled out, displayed on site, and returned to the supervisor when hot work is complete. Permits contain a checklist to be completed prior to, and after, hot work activities.

5.0 Responsibilities

Management

- It is the responsibility of management to support and enforce appropriate use of this procedure.

Environment, Safety, Risk Management

- Develop a written Hot Work program and revise the program as necessary.
- Assist with Hot Work procedure training.
- Periodically audit operations, documentation and training.

Departmental Safety Coordinator

- Be thoroughly familiar with the Hot Work procedures.
- Identify employees who may perform hot work as defined in this procedure.
- Provide Hot Work training to employees who perform hot work operations.
- Maintain records of employee training.

Supervisors including Faculty and Instructors

- Be thoroughly familiar with the Hot Work procedures.
- Coordinate with Departmental Safety Coordinators to identify employees who perform hot work and provide training for them.
- Provide Hot Work Permit forms for employees when hot work occurs.
- Maintain a file of completed permits.
- Ensure compliance with procedures by employees.

Employees

- Be thoroughly familiar with Hot Work procedures
- Follow all Hot Work procedures
- Fill out Hot Work Permits
- Give completed hot work permits to supervisor
- Complete required training program

6.0 Procedures

6.1 Hot work should not be performed if the work can be avoided or performed in a safer manner. When practical, objects to be welded, cut or heated should be moved to a designated safe location, e.g. maintenance shops.

6.2 If hot work must be performed, a Hot Work Permit must be completed.

6.3 All precautions on the Hot Work Permit must be met prior to any work commencing. The supervisor or the employee performing the hot work will complete the permit.

6.4 The Hot Work Permit is only good for the date specified on the permit.

6.5 A Hot Work Permit must be displayed at the work site during all hot work.

6.6 All building occupants must be suitably protected against hazards generated by the work. i.e. heat, sparks, fumes, welding rays, etc.

6.7 Before hot work begins:

- a. An appropriate fire extinguisher must be available and operable.
- b. Flammable and ignitable materials and debris must be moved at least 35 feet from the hot work area or covered and protected from the hot work by fire resistant material.
- c. Explosives, oxygen acetylene tanks, flammable liquids, compress gas cylinders or stored fuel must be moved at least 50 feet from the hot work area or covered and protected from the hot work by fire resistant material.
- d. Smoke and fire detectors in the immediate area of the hot work must be temporarily disabled until the hot work is completed. This can only be accomplished by contacting the OPC Workcenter.
- e. Adequate ventilation must be provided, especially when cutting or welding material with painted or coated surfaces.
- f. If work impacts building occupants, the work must be coordinated with them. Building occupants must be protected or isolated from the hot work area.
- g. Cracks or holes in floors, walls, and ceiling (including ductwork) must be properly covered or plugged.
- h. Hot work equipment must be operable and in good repair.
- i. If working on any drum, barrel or tank: it must be cleaned and purged of flammables and toxics, all tank feeds closed and the tank vented.
- j. A fire watch must be implemented if conditions warrant. If no fire hazards or combustible exposures are present a fire watch is not required.
- k. Workers and Fire Watch personnel must be know how to use fire extinguishing equipment and how to activate the fire alarm system.

6.8 When hot work is complete:

- a. The work area and any potentially affected surrounding areas must be inspected for fire, fire damage or the potential for fire for a minimum of 30 minutes following completion of the hot work.
- b. Smoke/fire alarms that were disabled because of hot work must be reactivated by contacting OPC Workcenter.
- c. The completed permit is given to the supervisor who maintains a permanent file of hot work permits.

Appendix A

Hot Work Permit Program

HOT WORK PERMIT

This Hot Work Permit is required for any operation involving open flames or producing heat and/or sparks and must be completed by a Supervisor or Lead and posted at the site. Hot Work includes, but is not limited to: Brazing, Torch Cutting, Grinding, Soldering, and Welding.

If the required precautions cannot be met, Hot Work is not permitted.

<p>INSTRUCTIONS FOR SUPERVISOR</p> <p>1. Verify precautions listed at right (or do not proceed with the work). 2. Complete Permit and retain for job files. 3. Post Permit and Warning in vicinity of hot work.</p>		<p style="text-align: center;">HOT WORK CHECKLIST</p> <p>Sprinklers and hose streams in service/operable. Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.) Multi-purpose fire extinguisher and/or water pump can.</p>
<p>DATE:</p>	<p>WORK ORDER #</p>	<p>REQUIREMENTS WITHIN 35 FEET OF WORK</p> <p>Dust, Lint, Debris, Flammable Liquids and oily deposits removed.</p> <p>Explosive atmosphere in area eliminated.</p> <p>Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets.</p> <p>Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.</p> <p>All wall and floor openings covered.</p> <p>Walkways protected beneath hot work.</p>
<p>BUILDING NAME, BLDG #, ROOM #, LOCATION</p>		
<p>DESCRIPTION OF WORK BEING PERFORMED</p>		
<p>NAME OF PERSON DOING HOT WORK</p>		
<p>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.</p>		
<p>SIGNED:</p> <p>_____</p> <p>(Supervisor or Lead or OPC Safety Coordinator)</p> <p>SIGNED:</p> <p>_____</p> <p>(Person doing Hot Work)</p>		<p>WORK ON WALLS OR CEILINGS</p> <p>Combustibles moved away from other side of wall.</p> <p>WORK IN CONFINED SPACES</p> <p>Confined space cleaned of all combustibles (example: grease, oil, flammable vapors).</p> <p>Containers purged of flammable liquids/vapors.</p> <p>Follow confined space guidelines.</p>
<p>TIME STARTED:</p>	<p>DATE STARTED:</p>	<p>FIRE WATCH/HOT WORK AREA MONITORING</p> <p>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.</p> <p>OTHER PRECAUTIONS TAKEN</p>
<p>Permit Expires DATE:</p>	<p>TIME:</p>	

WARNING!

HOT WORK IN PROGRESS WATCH FOR FIRE!

In case of FIRE call 911

Emergency Numbers:

- Police..... 826-5555
- Safety..... 826-5711
- Plant Operations..... 826-3646

Date of Permit: _____

WARNING!