

Roger Williams University

Hot Work Plan



Roger Williams University
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Hot Work Plan

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I. Introduction

Both the Occupational Safety and Health Administration (OSHA) and the National Fire Protection Agency (NFPA) have standards for any operation producing flames, sparks, or heat including cutting, welding, brazing, grinding, sawing, torch soldering, thawing frozen pipes, etc., also known as Hot Work. The basis for the standard is to prevent loss of life and property from fire or explosion resulting from Hot Work.

II. Definitions

Hot Work:

Any operation producing flames, sparks, or heat (including cutting of metals), welding, brazing, grinding, sawing, torch soldering, thawing frozen pipes, etc.

Hot Work Permit:

A special permit, which authorizes “Hot Work” activities at a specific location and time. The permit will be properly filled out, displayed on site and returned to the employee supervisor or designated manager when the Hot Work is complete. Permits contain a checklist to be completed prior to commencing Hot Work activities and also at the conclusion of the Hot Work.

Fire Watch:

Any individual performing Hot Work will watch for fire during the job and for a minimum of 30 minutes following completion of job. In the event that sparks or flames from Hot Work cannot be viewed by the person performing the job, an additional fire watch will be designated. When a fire watch is deemed necessary a trained individual will be stationed in the Hot Work area that monitors the work area for the beginning of unwanted fires both during and after the hot work. All individuals engaged in Hot Work and/or acting as a Fire Watch must be trained and familiar with the operation of portable fire extinguishers and methods to activate building fire alarm systems.

Personal Protective Equipment:

OSHA requires the use of personal protective equipment (PPE) to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective in reducing these exposures to acceptable levels. Employers are required to determine if PPE should be used to protect their workers. RWU requires all present at the Hot Work site to wear, at a minimum: long pants, closed toe shoes, and appropriate PPE as determined by the hazards of the specific job being performed.

Designated Hot Work Area:

Location designed for, and approved by RWU, for Hot Work operations to be performed regularly. The current Designated Hot Work Areas at RWU are:

- Mechanical Maintenance Shop
- Mechanics Shop
- Fine Arts Building/Room 102

These areas will be inspected by RWU’s Office of Environmental Health and Safety (EHS) quarterly.

III. Policy Scope and Training Requirements

The scope of this Policy includes all RWU employees, contractors, and their direct supervisors or managers that perform Hot Work in existing buildings. This Policy does not apply to new construction where there is no attachment to existing buildings or areas that are specifically designed and equipped for such operations (i.e. a Designated Hot Work Area). RWU departments are primarily responsible for compliance with, and safe implementation of, all RWU safety programs. EHS is available to assist with compliance and provide policy clarification as necessary.

Students are only allowed to perform class related Hot Work in Designated Hot Work Areas under the supervision of their instructors, after completing proper training.

Training

RWU requires all employees and students performing Hot Work to be knowledgeable in identifying potential hazards associated with Hot Work prior to performing any Hot Work. RWU EHS will provide required annual Hot Work procedure training, as well as fire extinguisher training to employees and students listed in the scope.

IV. Procedures:

- A. Do not perform Hot Work if the work can be avoided or performed in a safer manner. If practical, move the object to be cut, welded or heated to a Designated Hot Work Area.
- B. A Hot Work Permit must be completed if Hot Work is performed outside of a Designated Hot Work Area.
- C. All precautions on the Hot Work permit must be met prior to any work commencing. The job supervisor or the employee performing the Hot Work will complete the permit.
- D. The Hot Work permit is only good for the day specified on the permit.
- E. The Hot Work permit must be displayed at the work site during all Hot Work.
- F. All building occupants must be protected against any hazards generated by the Hot Work.
- G. *Hot Work operations in confined spaces and in the Marine and Natural Science Building require additional safeguards. Please contact EHS before pulling permit.*
- H. Before beginning Hot Work :
 1. Move all flammable and ignitable material and debris 35 feet from the Hot Work area or cover and protect any material that cannot be moved from the Hot Work by fire resistant material. Move all explosives, oxygen tanks, acetylene tanks, flammable liquids, compressed gas cylinders or stored fuel at least 50 feet from Hot Work area or cover and protect from Hot Work by fire resistant material.
 2. A fire extinguisher that is appropriate for the Hot Work must be available and operable.
 3. Smoke and fire detectors in the immediate area of the Hot Work may be temporarily disabled until the Hot Work is completed. Contact EHS at Ext. 3494 or 3781 **or** a Facilities Maintenance Supervisor at Ext. 3136 for assistance. The RWU Fire Panel Building Bypass Procedures will be followed as instructed.
 4. Properly cover and plug cracks or holes in floors, walls, and ceiling, including duct work.
 5. Adequate ventilation must be maintained. For questions or assistance with ventilation issues, contact RWU EHS at Ext. 3494 or 3781 **or** RWU Facilities at Ext. 3136.

6. Make sure all the building occupants have been protected from the Hot Work area. If work impacts building occupants, the work must be coordinated with the job supervisor or project manager.
 7. Make sure drums, barrels, and tanks have been cleaned and purged of flammables and toxics, and that all tank feeds are closed and the tank is vented.
 8. An additional fire watch must be implemented if deemed necessary.
 9. Workers and Fire Watch personnel are trained in the use of fire extinguisher equipment and how to activate the fire alarm system.
 10. Adequate Personal Protective Equipment must be worn at all times.
 11. Hot Work equipment must be operable and in good repair.
- I. When the Hot Work is complete:
1. The work area and any potentially affected surrounding areas must be inspected for fire, fire damage or the potential for a fire, for a minimum of 30 minutes following the completion of Hot Work.
 2. Smoke / Fire Alarms that were disabled because of Hot Work are re-activated by contacting RWU Office of Environmental Health and Safety (EHS) at Ext. 3494 or 3781 *or* a Facilities Maintenance Supervisor at Ext. 3136 for assistance. The RWU Fire Panel Building Bypass Procedures will be followed as instructed.
 3. Hot Work permit is closed out.
 4. Completed permit is returned to workers supervisor who then submits the completed permit to RWU EHS for record keeping purposes. Permits will be kept for 1 year.

Duties and Responsibilities:

Managers:

It is the responsibility of management to insure that this Policy is implemented in those areas under their supervision where applicable. As mentioned before, RWU departments are primarily responsible for compliance with, and safe implementation of, all RWU safety programs. RWU EHS is available to assist with compliance and provide policy clarification as necessary.

Environmental Health and Safety:

- A. Review and revise Hot Work Program as necessary.
- B. Assist with Hot Work procedure training for Supervisors.
- C. Perform quarterly inspections of Designated Hot Work Areas and maintain records of employee training.
- D. Be able to demonstrate knowledge of Hot Work procedures by compliant execution of all related procedures.
- E. Investigate and document all accidents or near misses as a result of Hot Work.

Facility Managers / Lab Managers / Capital Projects

- A. Be able to demonstrate knowledge of Hot Work procedures by compliant execution of all related procedures.
- B. Notify contractors of the RWU Hot Work Policy.

- C. Identify employees who may perform Hot Work as defined in this Policy.
- D. Provide Hot Work training to employees who perform Hot Work operations.
- E. Provide Hot Work Permits.
- F. Collect and complete Hot Work Permits and return to EHS for record keeping purposes.

Contractors / RWU Employees and Students

- A. Be able to demonstrate knowledge of Hot Work procedures by compliant execution of all related procedures.
- B. For RWU Employees and Students complete required RWU training; Contractors should undergo training through their employer.
- C. Must remain with task until complete per permit.
- D. Complete Hot Work permit

References:

- A. NFPA 51 B
- B. OSHA CFR 1910.252

WARNING

HOT WORK in PROGRESS

Fire Potential!

In case of Fire Activate Fire Alarm

Call Public Safety EXT.3333

Emergency Numbers:

Public Safety EXT. 254-3333

Environmental Health and Safety EXT. 254-3494/ 254-3781

Facilities EXT. 254-3136

Job Supervisor: _____

Date of Permit: _____

***This Permit is only valid for the Date issued**

***Post at Job Site**



Roger Williams University Hot Work Permit



Hot Work is any operation that generates heat, spark or open flame. This includes, but is not necessarily limited to, welding, cutting, grinding, soldering, heat gun use and similar activities.

STOP! Can the Hot Work be completed in a safer manner or can the Hot Work be avoided
STOP! Review RWU Hot Work Policy, NFPA 51 B and OSHA CFR 1910.252 for Hot Work Procedures

Date: _____ Location: _____ RWU Job Order # _____
Company Name _____
Type of Hot Work: ☐ Soldering ☐ Welding ☐ Cutting ☐ Roofing ☐ Other _____

Hot Work Precautions Check List: Complete this checklist prior to any Hot Work beginning that per the Hot Work Permit is not a Designated Hot Work Area. If any statements are **not true**, then **STOP! Hot Work should not begin** until the issue has been safely resolved.

REQUIRED Safety Precautions

- ☐ Fire suppression sprinklers, fire hoses and or fire extinguishers are available and operable.
- ☐ Hot Work equipment is operable and in good repair.
- ☐ Smoke/fire detectors in the immediate area of the Hot Work have been temporarily disabled in compliance with the RWU Fire Alarm Bypass policy until Hot Work is complete.
- ☐ Building occupants have been protected or isolated from the Hot Work area.
- ☐ Drums, barrels and tanks have been cleaned and purged of flammables and toxics, all tank feeds are closed, and the tank is vented.

REQUIRED within 35 feet

- ☐ Area within 35 feet of the work area has been properly swept to remove any combustible debris.
- ☐ Flammable and ignitable materials and debris have been moved at least 35 feet from the Hot Work area or covered and protected with fire resistant materials.
- ☐ Cracks and holes in floors, walls and ceilings (including ductwork) are covered and plugged.
- ☐ Combustible floors covered with fire resistant materials.

REQUIRED within 50 feet

- ☐ Explosives, compressed gas cylinders or stored fuel have been moved at least 50 feet from the hot work area or have been protected from the Hot Work.

Work on Walls or Ceilings

- ☐ Construction is non-combustible and has no combustible covering or insulation.
- ☐ Areas adjacent to walls being worked on are checked for combustibles and any combustibles are either removed or protected.

Is additional Fire Watch required per the Hot Work plan? (Person performing Hot Work cannot see sparks or flames while job is in progress)

YES _____ NO _____ Name: _____

The fire watch must have fire-extinguisher equipment readily available and be trained in its use. They must also be familiar with the procedures for sounding the alarm in the event of a fire. The fire watch will watch for fires in the exposed areas and are responsible for extinguishing spot fires and communicating alarms immediately.

When work is completed:

- ☐ Maintain fire watch for 30 minutes.
- ☐ Inspected work area and any potentially affected surrounding areas, for fire, fire damage, or potential fire.
- ☐ Reactivate smoke/fire detectors that were disabled because of Hot Work in compliance with the RWU Fire Alarm Bypass Policy.

I verify that the above location has been examined and the necessary precautions have been taken to prevent the outbreak of fire due to Hot Work.

Employee Signature (Issued): _____ Date: _____ Time: _____

Company Name _____

Employee Signature (Closed): _____ Date: _____ Time: _____

Supervisor Signature: _____ Date: _____

Emergency Numbers: Public Safety 254-3333 / EHS 245-3494 / Facilities 254-3136

This permit is only valid for the date issued

Return Completed Permit to EHS

