Hot Work Program

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319-273-2004
Hot Work Program
UNI Employees & Contractors

Introduction
This program applies to UNI Employees and Contractors conducting hot work on the University of Northern Iowa ("UNI") campus or through their employment, agreement, or contract with UNI.

Definitions
The following definitions apply to this program:

*Hot Work* means operations including welding, brazing, torch cutting, grinding, torch soldering, or any other operation that creates heat, sparks, and hot slag that have the potential to ignite flammable and combustible materials in the surrounding area.

*Hot Work Permit* means a document authorizing that required fire safety inspections and precautions have been implemented.

*Permit Authorizing Individual (PAI)* means a qualified individual who exhibits knowledge of details of the University of Northern Iowa Hot Work Permitting Program.

*Fire Watch* means a temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department. A fire watch is posted to monitor the safety of hot work operations and watch for fires. Fire Watches are posted by a PAI if the situation requires one, during hot work, and for at least 30 minutes after work has been completed. A person assigned to fire watch shall have no other duties and be solely committed to the duties of fire watch.

*Designated Area* means a room, or area within a room, specifically designated on an annual basis, to conduct hot work where a permit is not required. Designated hot work rooms or areas must be inspected annually by and designated by the Environmental, Health & Safety office. Contractors are still required to obtain a permit when working in these areas.

*Temporary Designated Area* means an area temporarily designated by the Environmental, Health and Safety office where hot work is expected to occur for an extended period of not more than seven days. The PAI is required to complete an initial permit, and ensure all safe work practices, and fire safety precautions contained in the Hot Work Program are confirmed prior to every incident of Hot Work. The intent of a Temporary Designated Area is only to alleviate the need to fill out a permit for every period of hot work in approved and designated areas; all other requirements of the program must be followed.

*Barriers* are structures, permanent or temporary that assist in reducing the spread of fire or restrict the potential distribution of ignition sources and shall include but are not limited to: Sheetrock painted walls, Building surfaces that are not readably combustible, and fire resistant tarps. Temporary structures and/or tarps shall be in good condition, well maintained and designed appropriately.

*Minor Fire* shall mean potential combustibles, in combination with a temperature-limited source of ignition, could not result in a fire that cannot be easily extinguished by one person with one fire extinguisher. This term only applies to the exemption under the heading COVER ALL OPENINGS in the hot work program.
Scope

Prohibited Areas
Hot work is not permitted when the following conditions exist:

- In a building or location where sprinklers are out of service or where such protection is impaired;
- When an entire building fire detection system is shut down;
- In the presence of explosive atmospheres where mixtures of flammable gases, vapors, liquids, or dusts may exist; or
- In tanks, drums, or other containers and equipment that contain or previously contained materials that could create explosive atmospheres.

Exclusions
All operations that produce open flames, hot sparks, or metals that could ignite combustible materials should be handled with care and treated with fire safety in mind, however this program does not apply to the following operations:

- Bunsen burners in laboratories;
- Fixed grinding wheels;
- Electric soldering irons;
- Cooking operations;
- Designated hot work rooms or areas;
- Recognized and approved scientific and academic procedures; and
- An outside contractor when the contractor is under a contractual agreement to conduct work and the contractor’s own Hot Work policy has been determined by the University Safety Officer, or his designee, to equal or exceed the safety requirements of this program. This section does not apply to an outside contractor who is considered “agree to conduct work” at the university under condition of purchase order, time and material, or similar non-contractual agreement is conducting hot work, these contractors must adhere to this program.

Safe Work Practices for Hot Work Procedures
The following procedures shall be followed when conducting hot work:

Obtain a UNI Hot Work Permit
A completed Hot Work Permit must be posted at or near the work area in such a manner that unknowing persons do not inadvertently enter the area.

UNI Employee Hot Work Operations
A UNI hot work permit is required whenever an UNI employee is conducting hot work. A hot work permit is valid for one working shift. If the work extends beyond the original work period, a new permit must be issued.

Contractor Hot Work Operations
If a contractor’s own Hot Work Program has not been approved by the University Safety Officer, or his designee, then a UNI Hot Work permit is required whenever the contractor is conducting hot work.

Follow Other Safe Work Practices
Hot work procedures should always be coordinated with other safe work practices as applicable.

Hot Work in Confined and Restricted Spaces
Work being conducted in confined and restricted spaces must also follow procedures outlined in the University Permit Required Confined Space Program and Restricted Access Entry Program.
Obtain a Fire Extinguisher
Ensure that a fire extinguisher, or a small hose or a bucket of sand are readily available for instant use in the area.

Remove or Cover Flammable and Combustible Materials
All flammable and combustible materials within a 35-foot radius of hot work must be removed.

When flammable and combustible materials within a 35-foot radius of hot work cannot be removed, it must be covered with flame-retardant tarps and a fire watch must be posted.

Sweep
Floors and surfaces within a 35-foot radius of the hot work area must be swept free of combustible dust or debris, and, if combustible, wet down with water.

Cover All Openings
Do not perform hot work until all wall and floor openings within 35 feet of the operations have been tightly covered or otherwise protected with metal guards or flame proofed tarpaulins.

Exception:
Protection of the floor and other surfaces with a fire resistant tarp or other barrier covering a minimum of a 5-foot radius when the following work is performed:

1. Where the work and the conditions are limited to soldering work, and the likelihood of ignition could only result in a minor fire.
2. Soldering hot work is limited to no more than the soldering of 3 fittings or the time spent with the torch lit is less than 10 minutes.

The following conditions must be met for the exemption to apply:

1. No readily combustible material is located within a 5 foot radius of the work area.
2. Hot slag or sparks are not likely to extend beyond 4 feet of the area.
3. A fire extinguisher, water, and ret rag are within reach at all times during the work.

Properly Manage Fire and Life Safety Systems
Entire building smoke detection and alarms systems cannot be shut down. Instead, smoke detectors in the immediate area of hot work may be covered for the duration of hot work to prevent false alarms. Detectors must be uncovered immediately upon completion of work.

Automatic sprinkler systems may not be shut down to perform hot work. Instead, individual sprinkler heads in the area of hot work may be covered with a wet cloth to prevent accidental activation.

Inform a Third Party
Facilities Management employees conducting hot work must inform the Facilities Management dispatcher of location, duration, and whether a fire watch is required and has been implemented. Power Plant employees should inform the Power Plant control room. Other departments conducting hot work must inform the University Safety Officer or his/her designee of location, duration, and whether a fire watch is required and has been implemented.

Fire Watch
A Fire Watch must be posted by a PAI if the following conditions exist:

• Combustible materials cannot be removed from within a 35-foot radius of the hot work.
- Wall or floor openings within a 35-foot radius of hot work that are exposed to combustible materials in adjacent areas, including concealed spaces in walls or floors that cannot be sufficiently protected
- Combustible materials are adjacent to the opposite side of partitions, walls, ceilings or roofs and are likely to be ignited.

On-duty fire watch personnel shall have only the sole duty of fire watch responsibilities including:

- Keep diligent watch for fires, obstructions to means of egress and other hazards.
- Take prompt measures for remediation of hazards and extinguishment of fires that occur.
- Be familiar with the means to activate a fire alarm in the building.
- Take prompt measures to assist in the evacuation of the public from the structures.
- Have at least one approved means of notifying the fire department.
- Shall be trained in the use of a fire extinguisher, and ability to recognize proper extinguisher type and size.
- Contact the fire department if a fire occurs regardless of whether said fire is extinguished. Further information regarding duties and responsibilities of a fire watch are available at the office of Environmental, Health and Safety.
- 30 Minute fire watch is to be performed at least 30 minutes after completion of work.

Archiving
A copy of the Hot Work Permit shall be forwarded to and retained by the Environmental Health and Safety Office for a period of one year. Original Hot Work Permits should be given to the department supervisor once hot work is complete.
### HOT WORK PERMIT - WEAR PROPER PPE

**Hot Work Being Done By:**
- [ ] Employee
- [ ] Contractor

**Name of Person Doing Hot Work**

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<th>Date</th>
<th>Job/Work Order Number</th>
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**Location/Building and Floor**

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<th>Description of Job</th>
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**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.**

**Signature of Permit-Authorizing Individual**

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<th>Time Started:</th>
<th>Time Work Finished:</th>
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**Pre-Work Inspection**

The Following are requirements within 35 feet on all direction of the work.

- [ ] Combustible dust or lint-producing equipment shut down.
- [ ] Conveyors, ducts, blowers, and other equipment capable of transporting sparks or burning materials isolated or shut down.
- [ ] Explosive atmosphere in area eliminated
- [ ] Floor swept clean
- [ ] Combustible floor wet down, covered with damp sand or fire-resistant sheets
- [ ] Remove other combustibles where possible. Otherwise protect with fire-resistant tarpaulins or metal shields
- [ ] All wall and floor openings covered
- [ ] Lock out/tag out procedures in place

**Are the Following Conditions Present**

1. Combustible materials cannot be removed from within a 35-foot radius of the hot work.
2. Wall or floor openings within a 35-foot radius of hot work expose combustible materials in adjacent areas, including concealed spaces in walls or floors.
3. Combustible materials are adjacent to the opposite side of partitions, walls, ceilings or roofs and are likely to be ignited.

**A Fire Watch is Required**

Work area and all adjacent areas to which sparks and heat might have spread, were inspected during the 30 minute fire watch period and there were no signs of fire or smoldering materials.

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<th>Time Fire Watch Completed</th>
<th>Signature of Fire Watch Personnel</th>
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**WARNING**

**HOT WORK IS IN PROGRESS**

**WATCH FOR FIRES!!**

**EMERGENCIES:**

CONTACT UNI POLICE

273-4000 OR 911

**FOR INFORMATION CONTACT**

UNIVERSITY OF NORTHERN IOWA
OFFICE OF ENVIRONMENTAL, HEALTH, AND SAFETY

273-5800
DESIGNATED HOT WORK AREA

This area has been determined to be safe for hot work operation. Non-permit hot work can only be conducted in the designated area.

Any changes to the area must be approved the office of Environmental, Health & Safety before hot work can resume.

CONTACT US
Office of Environmental, Health & Safety
Safety@uni.edu
319-273-5800