UNI HOT WORK PROGRAM
What We Expect to Accomplish

• Understand reasoning behind the new program
• Familiarization of the new program
• Learn ways to be reduce the likelihood of occurrence of unwanted fires.
• Learn steps to be compliant with the program

QUESTIONS, Please wait until the end
Why are we doing this?

- To comply with request of insurance provider
- To comply with the fire code
- To meet OSHA requirements
- To reduce the likelihood of property damage
- To reduce the likelihood of an interruption of operations
- It’s good, common sense practice
- TO KEEP EMPLOYEES, STUDENTS, AND VISITORS SAFE FROM FIRE!!

Environmental, Health & Safety
Application-Who has to do this?

• UNI employees
• Any and ALL contractors

(this will be explained in greater detail later)
Application - When is a Permit Required?

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.
Application- When is this NOT Required?

• Bunsen burners in laboratories
• Fixed grinding wheels
• Electric soldering irons
• Cooking operations
• Designated hot work rooms or areas
  (This will be explained in greater detail)
• Recognized and approved scientific and academic procedures
Application- When is this NOT Required?

An outside contractor when the contractor is under a contractual agreement to conduct work \textit{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. In this case, the company would follow their program and not UNI’s.

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 who is conducting hot work. These contractors must adhere to this program.
Let’s Talk Contractors
(Simple Terms)

If a company is under contract to do work here and it requires hot work, i.e. SEC Renovation, including sub-contractors, Their program must:
1. Meet or exceed UNI’s hot work policy
2. Be reviewed by the University Safety Officer, or his designee.
THE EXEMPTION DOES NOT APPLY TO outside contractors who are considered “agree to conduct work” at the university under condition of purchase order, time and material, or similar non-contractual agreement. These contractors must adhere to this program.

For example, if Joe’s Plumbing is called in to do a repair job under the above listed conditions. IF Joe can provide a hot work program to the University Safety Officer, or his designee, equal to or exceed the safety requirements of UNI’s program, than Joe’s is exempt from UNI’s program.
Application - Who can authorize a hot work procedure?

• A qualified individual who exhibits knowledge of details of the University of Northern Iowa Hot Work Permitting Program. The person is known as the Permit Authorizing Individual (PAI).

• That can, and many times is YOU!
How To

• Obtain a Fire Extinguisher
How To Continued

• Remove all flammable and combustible materials within a 35-foot radius of hot work

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.
How To Continued

Exemption to removing all combustible material within 35 feet:

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.
How To Continued

• Sweep floors within a 35-foot radius of hot work if necessary.

• Cover all openings in walls and floors within 35 feet of the operations (unless work type exemption applies). Tightly coverer openings or otherwise protect openings with metal guards or flame proofed tarpaulins.

• Call Dispatch; Power Plant employees, contact the control room.
How To Continued

• 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.

• Complete a Hot Work permit
The Permit
### Pre-Work Inspection

The following are requirements within 35 feet of all directions 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.

### Work Area Inspection

<table>
<thead>
<tr>
<th>Time Fire Watch Completed</th>
<th>Signature of Fire Watch Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Important Information

**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 Risk Management and Environmental, Health, and Safety 273-5800
Post the Permit

Post the permit in a conspicuous area to warn and advise people that hot work is in progress.

Once completed, give the original to your supervisor, and forward the copy to EH&S where it will be kept for a period of one year.
FIRE WATCH

Why would there need to be a fire watch?

• Combustible materials cannot be removed from within a 35-foot radius of the hot work, and work type exemption DOES NOT APPLY.

• 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.
FIRE WATCH- How is it done?

On-duty fire watch personnel shall have only the sole duty of fire watch!

- 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.
Designated Hot Work Area

Is 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 utilize the permit process when working in these areas.
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 Risk Management and Environmental, Health & Safety
Safety@uni.edu
319-273-5800

Signature

VALID UNTIL THIS DATE
When is Hot Work Completely Prohibited?

- 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.

** Excluding complete renovations
Likely Question

• What is the process if a contractor does not have a program that meets or exceeds UNI’s
  • EH&S professionals will ensure the contractor understands UNI’s program and they must follow it.

• Does every contractor have to be reviewed every time?
  • No. If the contractor is regularly on campus, and their program has not changed.

• It’s a small Job. Can I be the fire watch too?
  • Depends. During the job, NO. After the job, yes; as long as it in the ONLY function you are performing AND you are meeting the requirements of the program.
Likely Question

- The job is just grinding off a small piece. It should take 5 minutes. Do I have to complete a permit?
  - YES. Complacency is the root cause of many incidents, and the program has no exemption for “quick jobs”.
- Does this apply to hot work in the tunnel?
  - YES. In addition to following procedures outlined in the University Permit Required Confined Space Program and Restricted Access Entry Program
Knowledge Assessment

- Permit required?
- No. There is no open flame, and electric soldering irons are exempted.
• Permit required?
• Yes. Openings in wall.
• Permit Required?
• NO. In an area likely determined to be a designated area.