

University of Iowa Hot Work Loss Prevention Program

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I. Purpose and Scope

The purpose of this program is to establish a basic policy regarding Hot Work and to reduce the risk of injury and loss by fire caused by Hot Work activities. The program requires those who engage in Hot Work activities to comply with university policy, which incorporates the National Fire Protection Association (NFPA), International Fire Code (IFC) recommendations and OSHA standards.

This program applies to all university faculty, staff, students, vendors, and/or contractors performing Hot Work on behalf of the University of Iowa and all University of Iowa facilities, including University of Iowa Hospitals and Clinics (UIHC).

II. Definitions

A. Authorized University Representatives – examples include, but are not limited to, Operations Supervisor, Area Manager, Construction Manager, Utilities Manager, Project Manager, Contractor's Supervisor, or representatives from the Hot Work Committee.

B. Combustible Material – a material that, in the form in which it is used and under the conditions anticipated, will ignite and burn; a material that does not meet the definition of non-combustible or limited combustible.

C. Design and Construction- a university department that leads a comprehensive and cooperative approach to design and construction excellence.

D. Final Check- a final check or evaluation of the Hot Work area after the completion of any fire watch or fire monitoring (must be signed).

E. Fire Safety Supervisor/Permit Authorizer – an individual who authorizes Hot Work activities and supervises the individual performing Hot Work. A supervisor who successfully completes the Hot Work training can authorize Hot Work. Some examples are: Supervisor, Area Manager, Construction Manager, Utilities Manager, Project Manager, or Contractor's Supervisor or Foreman. This is not the supervisor of Facilities Management Fire & Life Safety or UIHC Fire & Life Safety.

F. Fire Watch – any individual who is designated and trained to observe the Hot Work activity being performed for the purpose of preventing, detecting, and suppressing fires. The Fire Watch must be a continuous monitoring by a trained individual to use manual firefighting equipment and have the ability to summon emergency assistance if needed. The Fire Watch can also be the Fire Safety Supervisor/Permit Authorizer, but not the person performing Hot Work (mandatory).

G. FM Global – the university's current property insurance carrier, FM or Factory Mutual Global.

H. High-Risk Area – High-Risk areas pose an increased level of risk in comparison with other areas of a facility. Some examples of high-risk areas are as follows:

- i. Indoor or outdoor hot work on or near combustible building assemblies or materials when the 35 ft. rule cannot be adequately mitigated.
- ii. Hot work near combustible storage or ignitable liquids when the 35 ft. rule cannot be met.
- iii. Torch-applied roofing work.
- iv. Hot work on combustible-lined equipment, piping, or ductwork.
- v. In the extremely rare circumstance where hot work occurs in an area where fire protection is impaired.

I. Hot Work – any operation that produces a flame, heat or sparks including, but not limited to, electric or gas welding, abrasive cutting, soldering, grinding, torch work, and brazing activities. This includes, but is not limited to, acetylene torches, arc welding equipment, portable grinders, and propane torches. This also includes non-rated electrical tools and equipment when used in a hazardous environment.

J. Hot Worker – any individual who is designated and trained to perform Hot Work.

K. Hot Work Area -

- i. Designated (Fixed per IFC) Hot Work Site – a designated location where flammable or combustibles are not present and Hot Work can proceed without the need for an authorized Hot Work Permit; however, these locations must complete a daily pre-hot-work checklist (see Appendix A) and maintain that completed checklist for 48 hours following the hot work. Welding shops and other permanent area maintenance shops can fall into this category. All

Designated Hot Work Sites are subject to a specific fire prevention inspection conducted annually by Campus Safety or UIHC Fire Safety. See Appendix A for the Designated Hot Work Site list, a sample Designated Hot Work Site certificate and sample Daily Pre-Hot-Work Checklist.

ii. Temporary Hot Work Site – any location other than a Designated Hot Work Site where Hot Work will be performed. A University of Iowa Hot Work Permit is required for these areas. See Appendix B for a sample University of Iowa Hot Work Permit.

L. Hot Work Committee - comprised of representatives from Risk Management, Environmental Health and Safety, Facilities Management, UIHC Fire & Life Safety, Public Safety and various other departments/units/colleges.

M. Hot Work Permit – a system used at the University of Iowa to authorize Hot Work on a daily basis. The Hot Work Permit includes required fire precautions, nature of risk, location of work to be performed, date and time work will commence, and space for authorized signatures. (Appendix B)

N. Hot Work Program Manager – an individual who is authorized by the department/unit/college for the implementation, monitoring and compliance of the Hot Work program. This individual:

- i. must have successfully completed the annual Hot Work training,
- ii. ensures a stock of blank Hot Work Permits is maintained and a distribution process exists for the dept/unit/college,
- iii. designates a Fire Safety Supervisor/Permit Authorizer each time Hot Work is to be performed,
- iv. collects the completed Hot Work Permits and reviews them for immediate feedback to the Hot Worker and/or the Fire Safety Supervisor/Permit Authorizer,
- v. maintains completed Hot Work Permits for an audit as explained in the audit section below,
- vi. participates in the audit process,
- vii. destroys completed Hot Work Permits after a successful audit is completed, and
- ix. brings programmatic feedback to the Hot Work Committee.

O. Interim Life Safety Measures – corrective actions taken when fire safety features are impaired.

P. Post Hot Work Fire Watch – generally a 60-minute continuous fire watch, or 3 hours for a High-Risk Area, immediately following the completion of the Hot Work. The individual must be designated and trained to observe the Hot Work area for the purpose of preventing, detecting, and suppressing fires.

Q. Remote Areas – isolated area not normally occupied by people (ex. roof, tunnels, all areas exterior to the building).

R. UIHC – University of Iowa Health Care includes all the hospitals, clinics and medical facilities including, but not limited to, the facilities at 200 Hawkins Drive, 500 East Market Street, 701 West Forevergreen Road, Centralized Emergency Power Generation Facility, Iowa River Landing, Sports Medicine, and the AirCare hanger at the Iowa City Airport.

III. Hot Work Procedures & Responsibilities

A. The University of Iowa Hot Work Program prohibits Hot Work activities in/on university facilities, until specific safety precautions are taken, and the work has been properly authorized. Hot Work locations are described as either:

1. Temporary Hot Work Site by the issuance of an approved University of Iowa Hot Work Permit.

2. Designated Hot Work Sites are approved locations that are designated and maintained in such a way that would allow Hot Work to be performed without the issuance of a Hot Work Permit; however, these locations must complete a daily pre-hot-work checklist (see Appendix A) and maintain that completed checklist for 48 hours following the hot work. These locations must have a “Designated Hot Work Site” certificate visibly posted. All Designated Hot Work Sites are subject to a fire prevention inspection conducted annually by Campus Safety or UIHC Fire Safety.

- a) These Designated sites are only those locations that have been formally evaluated and meet the requirements of the International Fire Code.

- b) Departments that wish to have a location evaluated and certified as a “Designated Hot Work Site” must contact Risk Management or UIHC Fire Safety. Inspection and verification of proposed location will be completed by Campus Safety or UIHC Fire Safety.

- c) These Designated sites may only be used by trained and authorized university faculty, staff, and students, or contractors and vendors who have received prior authorization to use the site.

3. The following activities do not require a Hot Work Permit:

- a) Bunsen burners in laboratories,

- b) Small electric soldering irons used for repairing electronics only,

- c) Authorized grilling on campus (must be in compliance with:

- <https://uiowa.edu/riskmanagement/outdoor-gascharcoal-grilling-campus>),

- d) Sterno products for official university catered events, and

- e) Low-Energy Hot Work as defined in the FM Global Property Loss Prevention Data sheet 10-3; Section 2.6 (October 2016, Interim Revision July 2021) (See Appendix C).

B. The Fire Safety Supervisor/Permit Authorizer must:

1. Question whether the Hot Work is necessary – is there a safer way?
2. Verify the location has been examined and the precautions have been checked on the “Required Precautions Checklist” portion of the Hot Work Permit.
3. Verify there is a qualified Fire Watch for the immediate area until Hot Work is completed.
4. If the Hot Work is to be conducted in a sprinklered facility, ensure that the sprinkler protection in the Hot Work area is in service. Any work involving sprinkler systems, including removal during renovation, requires pre-approval and planning with Facilities Management Fire Safety or UIHC Fire Safety.
5. Authorize permission for the Hot Work by signing the Hot Work Permit Part 1. The Fire Safety Supervisor/Permit Authorizer cannot be the same person performing the Hot Work.
6. Issue Hot Work Permit Part 2 to the person performing the Hot Work, to be posted in a conspicuous location at the Hot Work site.
7. The Fire Safety Supervisor/Permit Authorizer will collect Part 2 of the Hot Work Permit with all signatures completed. Fire Safety Supervisor/Permit Authorizer will then verify accuracy and completion of the permit and provide immediate feedback to the Hot Worker.
8. The Fire Safety Supervisor/Permit Authorizer will then submit completed Hot Work Permits to the following individuals until they can be audited as explained in the audit section below:
 - a) For projects managed by Facilities Management Design & Construction: the general contractor for the duration of the project until final acceptance by the university.
 - b) For locations that are not projects managed by Facilities Management Design & Construction: the Hot Work Program Manager.

C. Employee performing Hot Work must:

1. Use the University of Iowa Hot Work Permit issued by the Fire Safety Supervisor/Permit Authorizer.
2. Inform the shift supervisor or designee of planned Hot Work activities within designated areas requiring a Hot Work Permit.
3. Sign Part 1 of the Hot Work Permit as the person performing the Hot Work.
4. Request signature from the Fire Safety Supervisor/Permit Authorizer. Must be someone different than the person performing the Hot Work.
5. Affix the authorized Hot Work Permit to a visible place in the work area.

6. Conduct the Hot Work activities within the parameters and time limit set by the permit.
7. Stop Hot Work activities if any new hazards are introduced to the area.
8. Ensure that their tools and equipment are in satisfactory condition and good repair and that all personal protective equipment is being used properly.
9. Protect nearby personnel and passersby against heat, sparks, etc. when working in occupied areas.
10. Ensure Fire Watch will always be present before beginning the Hot Work.
11. Upon final sign off on the Hot Work Permit Part 2, verify accuracy and return to the Fire Safety Supervisor/Permit Authorizer.

D. Contractors

1. Contractors who have been awarded a project through the bidding process shall follow specification documents for contractors which can be found at the following web address: <https://www.facilities.uiowa.edu/projects/contractors>.
2. Contractors who have entered the project under a non-bidding process (i.e. purchase orders, standing purchase orders, blanket orders) shall use Hot Work Permits obtained/issued by a Fire Safety Supervisor/Permit Authorizer. Prior to the issuance of a Hot Work Permit, the Fire Safety Supervisor/Permit Authorizer or UIHC Fire Safety must review the requirements of Hot Work, including the requirement and duration of a Fire Watch.
3. The Contractor is responsible for ensuring their employees and subcontractors are adequately trained in all aspects of conducting Hot Work safely, including individual completion of the university-approved Hot Work training annually.
4. Contractors shall provide trained personnel knowledgeable of the university's Hot Work program and procedures for Hot Work activities.
5. Contractors shall not initiate any Hot Work activities until a permit is received from a trained and designated Fire Safety Supervisor/Permit Authorizer.
6. Contractors are responsible for ensuring that their tools and equipment are in satisfactory condition and good repair and that all personal protective equipment is used properly.
7. Contractors are responsible for protecting nearby personnel and passersby against heat, sparks, etc. when working in occupied areas.
8. Contractors must ensure a Fire Watch will always be present before beginning the Hot Work.
9. Completed Hot Work Permits should be submitted to and retained by the following individuals until they can be audited as explained in the audit section below:

- c) For projects managed by Facilities Management Design & Construction: the general contractor for the duration of the project until final acceptance by the university.
- d) For locations that are not projects managed by Facilities Management Design & Construction: the Hot Work Program Manager.

E. Fire Watch

1. Ensures that safe conditions are maintained during Hot Work activities.
2. The Fire Watch has the authority and will stop Hot Work activities if unsafe conditions develop.
3. The Fire Watch will have fire extinguishing equipment:
 - a) readily available and will be trained in its use,
 - b) adequately rated for the Hot Work being performed,
 - c) with updated testing tags and inspection records as required, and
 - d) mounted on a stand as necessary.

Contact Campus Safety for university employee “hands-on” fire extinguisher training.

4. Shall remain in the Hot Work area during the entire period of Hot Work activities and generally for an additional 60 minutes, or 3 hours for a High-Risk Area, including any break in activity. Prior to leaving the area the Fire Watch must perform a final inspection, sign Hot Work Permit Part 2 “Post-Work Fire Watch Signoff”, leave the Hot Work Permit posted and notify the Fire Safety Supervisor/Permit Authorizer.

- a) In the event that the current Fire Watch must leave the area, Hot Work activities must cease or replace the Fire Watch person.
- b) The person performing Hot Work cannot also be the Fire Watch for the same Hot Work Permit.

IV. Training

A. Anyone conducting Hot Work activities on University of Iowa property (including Designated Hot Work locations) must complete the university Hot Work training annually.

B. University Training:

1. For University of Iowa faculty, staff and students the training is available through Self-Service, My Training.
2. For contractors and other third parties training is available through the University of Iowa Risk Management website at: <https://riskmanagement.fo.uiowa.edu/hot-work>.

V. Compliance

A. The Fire Safety Supervisor/Permit Authorizer is responsible for monitoring and inspecting areas where they have issued Hot Work Permits to enforce compliance with this policy.

B. Authorized University Representatives and Hot Work Program Managers are responsible for taking appropriate corrective action to enforce compliance with this policy.

C. Enforcement and Penalty for Violations

1. First Offense – It is the duty of Authorized University Representatives and Hot Work Program Managers to stop the Hot Work immediately, initiate emergency notifications (where appropriate), and contact the Fire Safety Supervisor/Permit Authorizer for corrective action, including review or retraining of the Hot Work Program. The Fire Safety Supervisor/Permit Authorizer must take steps to ensure that non-compliant activity is corrected before the Hot Work may resume.

2. Subsequent Offense – If an individual continues to conduct Hot Work that is not in compliance with this university policy after the university has once stopped the work for non-compliance, the individual may be removed from the project, restricted from conducting Hot Work or restricted from any university facility for Hot Work purposes.

D. Auditing

1. Completed Hot Work Permits must be retained for audit by the following:
 - a. For that are projects managed by Facilities Management Design & Construction: the general contractor for the duration of the project until final acceptance by the university.
 - b. For locations that are not projects managed by Facilities Management Design & Construction: the Hot Work Program Manager.
2. The university's property insurance provider may audit any Hot Work in progress and completed Hot Work Permits for accuracy and compliance with the policy. An audit may occur at any time but most likely will occur during a regular insurance construction site inspection, annual campus visit, Hot Work site visit or at the end of a project.
3. After successful completion of an audit the completed Hot Work Permits may be discarded.

VI. Appendices

Appendix A. Designated Hot Work Site List, Sample Designated Hot Work Site Certificate and Sample Daily Pre-Hot-Work Checklist

Appendix B. Sample University of Iowa Hot Work Permit (updated 2025)

Appendix C. FM Global Property Loss Prevention Data Sheet 10-3; Section 2.6 – Low-Energy Hot Work (October 2016; Interim Revision July 2021)