UNIVERSITY OF ROCHESTER ENVIRONMENTAL HEALTH & SAFETY

| Policy No.: FS010 | | | Approved by: Mark Cavanaugh |
|-----------------------------------|-----|-----|---------------------------------|
| Title: Hot Work Procedures | | | Date: 8/25/2022 |
| Revision No.: 4 | | | Page 1 of 4 |
| Prepared by: Brian Prinzing | | | |
| EH&S Department Use Only: | Yes | XNo | UR Website: X Public Restricted |

I. PURPOSE

A hot work permit is the means by which the Fire Marshal's office, a part of Environmental Health and Safety of the University of Rochester works to minimize the risks involved in hot work activities. The system provides checks and balances to educate contractor and Facilities personnel involved in procedures that could initiate a fire or explosion source.

II. PERSONNEL AFFECTED

- University of Rochester Facilities Operations
- Non University construction personnel working at all University properties
- University of Rochester Fire Safety Personnel (enforcement group)

III. DEFINITIONS

EH&S- Environmental Health & Safety

FSS – Fire Safety Specialist

FSI- Fire Safety Inspector

PDF- Portable Document Format

Hot Work-

All hot work requires a hot work permit. NFPA 51B defines hot work as any activity which produces a flame, sparks, or heat such as but not limited to welding, cutting, soldering, brazing, grinding, torch applied flooring, torch applied roofing, hot riveting, outdoor charcoal cooking. Not included are items or activities including candles and pyrotechnics.

*per UR Fire Marshal bench-top soldering does NOT require a hot work permit

Hot Work Area- The area exposed to the sparks, hot slag, radiant heat convective heat, conduction heat, or flame generated by the hot work operations taking place. This includes the immediate work area as well as areas adjacent to and above and/or below the work area within 35 feet of the work area. It is the responsibility of the Fire Safety Specialist and the person doing the hot work to complete a prework inspection of the job site. It is also the responsibility of the personnel doing the work to maintain the job site to the requirements on the hot work permit.

<u>Hot Work Permit</u>- The approval given to the responsible person(s) in order to complete the required hot work. No hot work shall be performed until a permit is issued and on site. The responsible person shall be on the approval list in order to have a permit issued to them. The permits are granted in written and emailed PDF format. Verbal permits will be issued only in emergencies.

<u>Responsible person (Fire Watch)</u> - Fire watch is a person who has completed the hot work training through the EH&S department. They function as a continuous

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surveillance of the hot work areas and any adjacent areas identified on the hot work permit. In addition, they have the responsibility to notify University Public Safety of any fire or emergency conditions that develop. They may also be called upon the sounding of the building evacuation signal.

Specific shop/work area operated by the Facilities Department can apply for a standing hot work permit for their shop area. The hot work shall be restricted to within the shop/work area only due to daily work requirements. These areas shall be inspected annually and approved by the University Fire Marshal's Office and follow all guidelines established.

IV. RESPONSIBILITIES

It is the responsibility of the qualified responsible person (completed hot work training) to request a hot work permit from the University of Rochester Environmental Health and Safety Department at least 48 hours in advance, unless it is an emergency. The EH&S representative will then fill out a permit and maintain a log of all permits at the EH&S office.

Once the permit is written, the FSS or FSI will contact the person who requested the permit to make arrangements to present the permit via emailed PDF or print out available for pick up. The Fire Safety Unit is responsible for writing a permit for the requester in the allotted 48 hours before hot work is to be performed. After the hot work permit is written, the FSS or FSI will need to print or email the permit for the requester. Emailed permits shall be saved as a PDF that cannot be changed. Included on the PDF will be a notation "The contact is responsible to print and post this Hot Works Permit at the site of the work being performed. The individuals are responsible for adhering to all portions on the permit and following all UR mandated rules regarding Hot Works." The permit must be on site before hot work starts. The FSS or FSI will conduct inspections of the work site to verify the work is being conducted safely. This includes checking the following:

- -Hot work equipment is in good working order.
- -Flammable gasses, liquids, and dusts are removed from the work area.
- -An appropriate extinguisher is onsite and in good working condition
- -Combustibles that are within 35' of the work area(s) are moved or if they cannot be moved shall be covered with fire retardant welding blankets and curtains, and all other applicable precautions listed on the permit are met.

If during an inspection of the site, the requirements on the permit are not being followed the hot work permit can be pulled.

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Providing the required 10 lb. ABC type fire extinguisher is the responsibility of each person performing hot work at every site; an extinguisher in the area provided by UR is **NOT** acceptable. It is the responsibility of the contractor/fire watch to maintain the fire extinguishers in working condition, including completing the monthly inspection of each fire extinguisher and documenting the date (day/month/year) and person completing the inspection. They are also responsible to ensure the extinguisher has an annual inspection completed by a qualified person.

The fire watch will be onsite during hot work procedures and for a minimum of 30 minutes after hot work has stopped to monitor for fire and unsafe conditions. This includes breaks and lunches. This time could be increased as required and stated on permit.

During times of welding, grinding or torch cutting a minimum of two people will be required to perform fire watch and preform work at the site; a third person shall be required if there is. a risk of sparks, flames or heat penetrating through floors or walls. The fire watch's sole responsibility is to watch the area during hot work activity. The fire watch can and shall stop all hot work activities if an unsafe condition arises.

If hot work is being conducted in an area where explosive vapors could accumulate, such as a battery room, adequate ventilation shall be provided before work starts and air monitoring may have to be conducted before and during hot work.

It is the contractor's responsibility to ensure their employees receive the required OSHA fire extinguisher training annually. University Facilities employees receive the required OSHA fire extinguisher training during their annual EH&S Safety training.

Hot work operations shall be suspended when a sprinkler system is impaired and additional precautions may be required if a fire alarm system is impaired.

V. PROCEDURES

Any contractor or employee wishing to do hot work must first become a qualified fire watch/responsible person. He/she shall contact the EH&S department of the University of Rochester and schedule a time to review the hot work safety training and complete and successfully pass the quiz.

Once qualified the responsible person can then contact EH&S at least 48 hours in advance of any hot work activities to request a permit. In the event of an

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emergency EH&S shall be contacted before performing any hot work, and the responsible person shall wait until they hear back from EH&S. For emergency or off-hours work permit requests, the individual requesting the permit shall contact Public Safety at 275-3333. The dispatcher shall take the information and then contact the proper representative from EH&S for the permit approval. Permits can be issued for up to a month unless specific times have been determined and is up to the responsible person to call EH&S to ask for a renewal, which will be issued on a new permit tag; exceptions can be made at the direction of EH&S. Hot work permits shall be posted at the hot work site in a conspicuous location.

If EH&S concludes a dedicated fire watch was not required for that activity, the person performing the activity must still inspect the site <u>as stated on the hot work</u> permit after the hot work activity to make sure no materials are smoldering.

VI. REFERENCES

New York State Fire Code Chapter 35 Welding and Other Hot Work NFPA 51B Fire Prevention during Welding, Cutting, and Other Hot Work NFPA 241 Chapter 5, Section 5.1 Hot Work

VII. APPENDICES/FORMS – N/A

VIII. REVISION HISTORY

| Date | Revision No. | Description |
|-----------|--------------|---|
| 5/2/2008 | 1 | Merged documents |
| 6/23/2016 | 2 | Review and updated |
| 5/22/2019 | 3 | Addition of new requirements and electronic permits |
| 8/25/2022 | 4 | Triennial review – minor grammatical changes |