



**JAMES MADISON
UNIVERSITY**

OFFICE OF RISK MANAGEMENT

James Madison University – Hot Work Procedures

REVISED – JANUARY 22, 2020

Hot work is one of the leading causes of fires in industrial operations according to the National Fire Protection Association (NFPA) and has been deemed the cause of the greatest insurance losses the commonwealth has ever experienced.

OSHA defines hot work as “riveting, welding, flame cutting or other fire or spark-producing operation.” Additional flame and spark producing operations include, but are not limited to: torch cutting, arc cutting, soldering, brazing, grinding and pipe thawing. Hot work increases the potential for fire by providing an ignition source. The hot work permitting process attempts to reduce the risk of fire by reducing the presence of fuel in an area exposed to an ignition source.

The following procedure provides a systematic approach to controlling hot work hazards and reducing the fire potential associated with hot work while explaining how to properly complete and utilize JMU's hot work permit.

An effective hot work program begins with management. Managers and supervisors play a key role in the hot work program by requiring participation in and support of the university's hot work permitting process. JMU's hot work permitting process requires that a hot work permit be completed prior to the commencement of any applicable hot work task and properly closed out after that hot work task is completed. Any hot work being conducted without a valid hot work permit may be stopped immediately.

The hot work permitting program applies to all employees, contractors, and contract employees working on university owned buildings and/or university controlled projects on other properties. Contracts for such projects shall stipulate a JMU hot work permit shall be used by contractors for all hot work activities in those situations. Contractors working on new construction or on unoccupied buildings undergoing major renovation shall have their own OSHA/VOSH compliant hot work program.

A complete understanding of JMU's fire watch procedures is necessary for competence in working with JMU's hot work procedures. JMU's fire watch procedures can be found at: <http://www.jmu.edu/riskmgmt/safety.shtml>.

Hot Work Permitting Process

- A hot work permit shall be issued to those employees or contractor employees conducting the work only after the proper precautions are taken.
- The hot work permits should only be issued by qualified, trained, personnel at the university.
- The first step in the hot work permit process is to determine if the work is truly necessary or if the task can be accomplished by safer means?
- Another alternative to issuing a hot work permit is moving the work to one of the campus preapproved hot work sites where a hot work permit is not required.
- If no alternative exists to issuing a hot work permit:
 - The site safety precautions shall be reviewed.
 - Part 1 (page 1) of the hot work permit shall be completed and retained by the issuer as an indicator of an open hot work permit.

Completing the JMU Hot Work Permit

Permit Expiration Date:

The permit should be limited to a single shift. The date the permit expires should be documented on the form. If the work is not completed within a single shift or by the date on the form a new permit should be issued.

Fire watch and extended fire watch:

The permit has a standard fire watch time period of 1-hour after the completion of hot work. If the work is to be conducted in or near storage areas, areas of heavy fuel load, or where a deep-seated fire could develop, an extended fire watch of up to three hours should be considered. As determined by the person issuing the hot work permit.

The hot work zone and area of fire watch will include everything within 35 feet (10.668 meters) of the task area(s).

The person issuing the hot work permit should review all items in this section and check the applicable precautions that have been taken. Any ductwork openings should be covered to prevent sparks from entering the ductwork and being carried into the system. An entire building fire watch will be necessary if ductwork cannot be isolated. Please see the JMU Risk Management website for additional building fire watch information:
<http://www.jmu.edu/riskmgmt/safety.shtml>.

Work on or near walls and ceilings:

The person issuing the hot work permit should verify the precautions taken to prevent combustion or penetration of walls and ceilings within the hot work zone and area of fire watch.

Work on enclosed equipment:

The person issuing the hot work permit should verify the precautions taken with equipment enclosures and check applicable boxes on the permit form.

Fire Watch:

The person issuing the hot work permit should review all items in this section and check applicable boxes on the permit form. All personnel assigned to fire watch must be qualified and trained to conduct fire watches and be assigned no other task, but fire watch. The area surrounding the hot work task area, including areas situated directly above and below the hot work areas should be monitored for a **minimal of 1-hour and as much as 3-hours** after the job had been finished. Personnel assigned to the fire watch should be trained on the use of fire protection equipment including portable fire extinguishers. When the hot work has been completed, the information on page 2 of the hot work permit should be completed by the appropriate personnel. **Final site inspection shall be completed** after the fire watch has expired. Please see the JMU Risk Management website for additional building fire watch information:
<http://www.jmu.edu/riskmgmt/safety.shtml>.

Hot work completed and permit signed:

The individual assigned to conduct the hot work should sign his or her name along with the date and time the hot work was completed. This provides a starting time for the fire watch to monitor the work area.

Fire watch completed and signed:

The individual assigned to the fire watch duty should sign his or her name along with the date and time the fire watch was completed. Where an extended fire watch is required on the permit, the individual should complete the final inspection and then sign off after completing the extended fire watch.

Final check-off completed and signed:

The person issuing the hot work permit shall sign-off after inspecting the hot work/fire watch area and verifying that all requisite signatures are in place.

Hot work form completion process:

The person issuing the hot work permit shall be responsible for collecting parts, page 1 and page 2, of the form. The two parts shall be kept on file for a minimum of 6 months from the date of the permit expiry. All hot work documentation shall be readily available for inspection upon request by any of the following: State Fire Marshal's Office, university

safety personnel, property insurance loss control consultants, VOSH, and others.

Additional information:

Visit the JMU Risk Management website for additional information and training for the university hot work permitting process:
<http://www.jmu.edu/riskmgmt/safety.shtml>.