

NORTHERN KENTUCKY UNIVERSITY

POLICY LINK: **FIRE AND LIFE SAFETY POLICY**

ISSUE DATE: **01/15/2021**

REVISED DATE: **07/16/2021**

TITLE: **HOTWORK PERMIT PROCEDURE**

OBJECTIVE AND PURPOSE

The purpose of the Hot Work Permit Procedure is to reasonably reduce the chance of an actual fire or false alarm caused by work involving welding, open-flame soldering, brazing, oxygen cutting, arc cutting, grinding, thawing pipe, hot riveting, or similar applications producing a spark, flame, or heat. This program does not cover the use of candles, laboratory activities, pyrotechnics or special effects, cooking equipment, electric soldering irons, or torch applied roofing (see NFPA 241). Employees or contractors conducting hot work must also comply with all other applicable University policies and procedures. This procedure is administered under the authority of the University Fire and Life Safety Policy.

DEFINITIONS

There are no definitions listed for this procedure.

RULES AND PROCEDURES

All **combustibles** must be protected from ignition by the following means:

1. Ensure the work is moved to a location free from combustibles.
2. If the work cannot be moved, ensure the combustibles are moved to a safe distance or have the combustibles properly shielded against ignition.
3. Ensure hot work is scheduled such that operations that could expose combustibles to ignition are not started during hot work operations.
4. If these conditions cannot be met, then hot work shall not be performed.
5. Ensure that fire protection and extinguishing equipment are properly located at the site.
6. See that the fire watch is available at the site, where required.
7. Where a fire watch is not required, the hot work supervisor shall make a final checkup one hour after the completion of hot work operations to detect and extinguish possible smoldering fires.

A **fire watch** must be posted when hot work is performed in a non-designated location where other than a minor fire might develop or where the following conditions exist:

1. Combustible materials in building construction or contents are closer than 35ft to the point of hot work
2. Combustible materials are more than 35ft away but are easily ignited by sparks
3. Wall or floor openings are within 35ft and expose combustible materials in adjacent areas. This includes combustible materials concealed in walls or floors.
4. Combustible materials are adjacent to the opposite side of partitions, walls, ceilings, or roofs and are likely to be ignited.

The function of the fire watch is to observe the hot work and monitor conditions to ensure that a fire or explosion does not occur because of the work performed. The fire watch function must be conducted by an individual who does not perform the actual hot work. The fire watch is authorized to stop any unsafe operation or activity. Fire watch duties and responsibilities include:

- Watch for fires, smoldering materials, or other signs of combustion.

- Be aware of the inherent hazards of the work site and of the hot work.
- Ensure that safe conditions are maintained during hot work operations and stop the hot work operations if unsafe conditions develop.
- Have fire-extinguishing equipment readily available and be trained in its use.
- Extinguish fires when the fires are obviously within the capacity of the equipment available. If the fire is beyond the capacity of the equipment, sound the alarm and evacuate the area immediately.
- Be familiar with the facilities and procedures for sounding an alarm in the event of a fire. A fire watch shall be maintained for at least one hour after completion of hot work operations in order to detect and extinguish smoldering fires. More than one fire watch shall be required if combustible materials that could be ignited by the hot work operations cannot be directly observed by a single fire watch. Monitoring of the hot work area shall continue for no less than three hours after the one-hour fire watch.

Hot work Area shall be allowed only in areas that are or have been made fire safe. Hot work shall be performed in either designated areas or permit-required areas. A designated area shall be a specific area designed or approved for such work. The following areas are designated hot work areas for the University:

1. Ceramics Building Welding Room (screens and exhaust nozzles must be used)
2. Maintenance Building Welding Shop

Designated areas still require a Hot Work Permit, but the permit is allowed to be issued for one year. The Hot Work Supervisor is responsible for maintaining the area for the duration of the permit. A permit-required area shall be an area that is made fire safe by removing or protecting combustibles from ignition sources. Hot Work shall not be allowed in the following areas:

1. Areas not authorized by the hot work supervisor.
2. In the presence of explosive atmospheres (that is, where mixtures of flammable gases, vapors, liquids, or dusts with air exist).
3. In explosive atmospheres that can develop inside uncleaned or improperly prepared drums, tanks, or other containers and equipment that have previously contained such materials.
4. In explosive atmospheres that can develop in areas with an accumulation of combustible dust.

Hot work permits are available at the Power Plant. Before hot work operations begin a hot work permit must be filled out by the hot work supervisor and a copy must be on file at the Power Plant. Prior to issuing a hot work permit, the hot work supervisor must verify all required precautions that have been made as listed on the permit. Based on local conditions the hot work supervisor shall determine the length of the period for which the hot work permit is valid (no more than 30 days except designated areas). The hot work supervisor must inspect the hot work area once per day while the hot work permit is in effect to ensure that it is a fire-safe area. Hot work permits must be returned to the power plant once hot work and fire watch is complete. The permit must be signed, dated, and fire watch hours logged on the power plant copy and shall be retained for record keeping.

Fire Alarm Bypass is used anytime that hot work is located where it may cause a fire alarm system to accidentally activate; the fire alarm may be disabled by request through the Power Plant and Safety and Emergency Management.

Hot Work Supervisor Responsibilities

The hot work supervisor is responsible for the safe operations of all hot work activities under his/her supervision. This includes the following:

- All individuals involved in the hot work operations, including contractors, must be familiar with the provisions of this procedure.
- Employees must be trained in the safe operation of their equipment and the safe use of the process.
- Employees must be aware of the inherent risks involved and understand the emergency procedures in the event of a fire.
- Advise all contractors about site-specific flammable materials, hazardous processes, or other potential fire hazards.
- Ensure contractors and employees fill out a hot work permit

Hot Work Operator Responsibilities

The hot work operator shall handle the equipment safely and use it so not to endanger lives or property. The operator also shall:

- Have approval before starting hot work operations (Hot Work Permit).
- Cease hot work operations if unsafe conditions develop and shall notify the hot work supervisor for reassessment of the situation.
- Wear proper personal protection equipment.

RESPONSIBILITIES

Safety and Emergency Management Responsibilities

Safety and Emergency Management is responsible for procedure development, review, and compliance with all applicable federal and state regulations. Safety and Emergency Management will coordinate training as needed. Safety and Emergency Management staff are authorized to halt any unsafe work practice that is not in accordance with this or any other NKU safety policy or procedure.

Chair/Director Responsibilities

It is the responsibility of the chair/director to comply with applicable environmental, health and safety laws and regulations, University policies and procedures, and accepted safe work practices. Chairs/directors shall ensure that their employees receive the required training prior to beginning work and annual/refresher training as needed. The chair/director is also responsible for maintaining their employee training records.

Chairs and Directors may delegate the details of program implementation to appropriate personnel within their authority. The ultimate responsibility, however, for ensuring implementation of these programs at the academic department/administrative unit level remains with the chairs/directors.

TRAINING

Employees that conduct hot work activities must read this policy and receive proper training. Departments are responsible for maintaining training records for their employees.

For additional information, forms, training, and other resources visit inside.nku.edu/safety.

Documentation of Updates and Changes:

Updated by Audra Points July 2021