# HOT WORK PERMIT PROGRAM

AUBURN UNIVERSITY
RISK MANAGEMENT & SAFETY



#### WHAT IS HOT WORK?

WORK INVOLVING BURNING, WELDING, OR A SIMILAR OPERATION THAT IS CAPABLE OF INITIATING FIRES OR EXPLOSIONS.

#### EXAMPLES OF HOT WORK

 Welding, open-flame soldering, brazing, thermal spraying, oxygen/arc cutting

- Heat treating
- Grinding
- Thawing pipe
- Powder-driven fasteners
- Hot riveting
- Similar applications producing spark, flame, or heat



#### WHAT IS EXCLUDED?

- Candles
- Pyrotechnics
- Cooking operations
- Electric soldering irons







#### **PURPOSE**

 Hot work permits are used to lessen the chances of fires breaking out by making sure only qualified individuals are doing the work in a safe area and a safe manner.



#### **SCOPE**

- This program applies to Auburn University employees and contractors who perform or supervise hot work activities in existing University buildings.
- This program does not apply to areas that are specifically designed and equipped for such operations, e.g., designated welding areas.

 Hot work should not be performed if the work can be avoided or performed in a safer manner. When practical, objects to be welded, ćut, or heated must be moved to a designated safe location, e.g., designated welding areas.





 If hot work must be performed, a Hot Work Permit must be obtained from Auburn University's Department of Risk Management & Safety before the hot work begins.

 All precautions on the Hot Work Permit must be met prior to performing any hot work. The Hot Work Permit will be issued by Risk Management & Safety and is valid only for the date(s) and time specified on the permit. A copy of the permit must remain at the hot work location until the hot work is completed.





 All personnel (employees, contractors, building occupants) must be suitably protected against hazards generated by the work(e. g., heat, sparks, fumes, welding rays, etc.) This may include, but is not limited to, the use of personal protective equipment, shields, screens, or local exhaust ventilation.

#### PROHIBITED CONDITIONS

- A Hot Work Permit will not be issued if any of the following conditions exist:
  - Combustible or flammable materials are within 35 feet and cannot be moved or protected.
  - > Floor and wall openings cannot be covered.
  - Cutting or welding on pipes or other metals can conduct enough heat to ignite nearby combustible materials.
  - Any condition that could result in undue hazards by performing the work.

#### MANAGEMENT RESPONSIBILITIES

- Advise all contractors about site-specific flammable materials, hazardous processes, and other fire hazards.
- Ensure all individuals, including contractors, are aware of inherent risks involved and emergency procedures.
- Ensure hot work procedures are being followed.
- Ensure that contractors follow University procedures.
  - ➤ Hot work only in areas permitted by PAI.

## PERMIT-AUTHORIZING INDIVIDUALS (PAIs)

#### Responsibilities:

- Determine site-specific flammable materials, hazardous processes, other potential fire hazards present or likely in work location.
- Ensure fire protection and extinguishing equipment properly located at site.
- Ensure fire watch available on site.

#### SUPERVISOR RESPONSIBILITIES

- Ensure that all employees and contractors are following hot work procedures.
- Ensure that a hot work permit is issued prior to the start of work.
- Ensure that all cutting and welding equipment is in good condition.
- Ensure that all employees are suitably trained in the operation of the equipment and safe use of the process.
- Ensure that contractors follow University procedures.
  - Includes outage procedures for fire alarm and sprinkler.

#### EMPLOYEE RESPONSIBILITIES

- Follow and use hot work procedures.
- Obtain a hot work permit prior to starting work.
- Ensure that all cutting and welding equipment is in satisfactory condition and in good repair.
- Attend and actively participate in training sessions.
- Protect nearby personnel and passers by against heat, sparks, etc. when working in occupied buildings.
- Use PPE as required.



#### FIRE WATCH

TRAINED PERSONNEL WHO ARE IN ATTENDANCE DURING THE ENTIRE HOT WORK OPERATION AND ARE IMMEDIATELY AVAILABLE TO EXTINGUISH A FIRE OR TAKE OTHER EFFECTIVE ACTION IF NEEDED.

#### WHEN IS A FIRE WATCH REQUIRED?

- Wall or floor openings within 35 feet of the work expose combustibles in adjacent areas including confined spaces.
- Combustibles could be ignited by conduction or radiation through metal partitions, walls, ceilings, or roofs.
- Anytime hot work is conducted.



#### FIRE WATCH RESPONSIBILITIES

- Awareness of inherent hazards of work site and hot work.
- Ensure safe conditions maintained during hot work.
- Authority to stop operations if unsafe conditions develop.
- Ensure proper fire extinguishing equipment is readily available & be trained in it's use.
- Familiar with facilities and procedures for sounding alarm in event of fire.

PULL DOWN

#### FIRE WATCH RESPONSIBILITIES

- Watch for fires in all exposed areas.
  - May extinguish fires contained to a small area.
  - Sound alarm when appropriate.
  - ➤ Call 911.



 Maintain watch at least ½ hour after hot work has been completed.



- Equipment is in good operating condition.
- Floor free of combustible materials (paper clippings, wood shavings, textile fibers, etc.) for radius of 35 ft.
- Combustible floors (except wood on concrete)
  - ➤ Kept wet
  - Covered with damp sand

- Combustibles relocated at least a 35 ft. radius from work area.
  - If not feasible, one of the following:
    - Protected with fire-retardant covers.
    - Shielded with metal or fire-retardant guards/curtains.
      - ✓ Edges of covers at floor.



- Openings or cracks in walls, floors, ducts within 35 ft. of site must be tightly covered with fire-retardant or noncombustible material.
- Conveyor systems shielded.
- Work near walls/partitions/ceilings/roofs of combustible construction must be protected by fireretardant shields/guards.
- Work on wall/partition/ceiling/roof requires fire watch on both sides to prevent ignition of combustibles.

- Fully charged/operable fire extinguishers of appropriate type available in immediate work area.
- If close to sprinkler head or smoke/heat detector an outage must be requested.
  - Outages require 5 days notice unless it is an emergency.



- Nearby personnel suitably protected against heat, sparks, slag, etc.
- Permit length determined by PAI but no more than one week.
- PAI inspect at least once per day while permit in effect.

#### RMS - FIRE SAFETY CONTACTS

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