

HOT WORK

Program
Overview &
Permit
Process

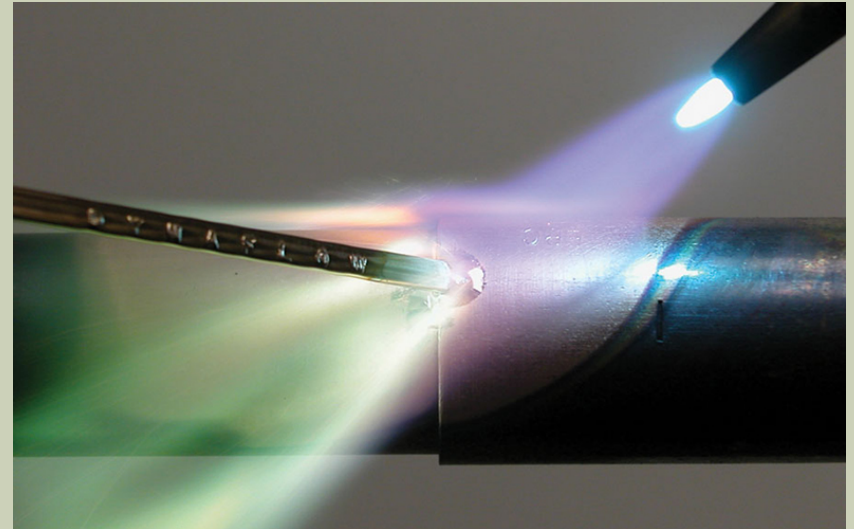
TOPICS

- What is Hot Work?
- Permit Process
- Worksite Safety



WHAT IS HOT WORK?

- The following activities are considered **Hot Work**:
 - Welding
 - Soldering
 - Cutting
 - Brazing
 - Grinding
 - Use of asphalt / Tar kettle(s)
 - Other work that might create sufficient heat or spark which could start a fire
- All Hot Work requires a **permit** if performed outside of shops with the proper safety precautions in place.



HOT WORK PROGRAM OVERVIEW

- Applies to all A-State employees and **contractors**
- FM is primary inspector & approver; Safety Offices can also inspect/approve
- Fire Alarm Systems must in operation and protected
- Contact Safety Offices before performing hot work in a **confined space**
- No hot work near flammable materials
- Combustibles must be removed or shielded with flame retardant coverings
- Fire extinguisher must be within 15 feet
- Fire watch required during and for 30 minutes after hot work
- Public must be protected

EXEMPTIONS – RARE VS COMMON

Rare:

- If Fire Alarm System is inoperable, an Action Plan detailing fire safety precautions must be approved by **JFD**
- If delay risks life or damage to university property, employee performing hot work shall ensure area is **fire safe** and proceed

Common:

- Areas permanently established and arranged to conduct ongoing hot work do not require a permit
 - Still requires are to be **fire safe**



Global Property - Loss Prevention Engineering



HOT WORK PERMIT PART 1

Can the work be completed using a different method or at a less hazardous location, such as the maintenance shop, which would not require the use of a hot work permit?

Permit Number: **0446109**

Hot Work Being Conducted by:

Employee: _____

Contractor: _____

Issue Date: _____

Job, Task or PO #: _____

Location, Bldg & Floor: _____

Nature of Task: Cutting Welding

Brazing Grinding Soldering

Thawing Pipe Torch Applied Roofing

Other _____

The location where this work is to be done has been examined and necessary precautions have been taken. Permission is hereby granted for this work.

Name of Person Issuing Permit:

Signed: _____

Permit Expires

Date _____ Time _____ AM PM

Extended Fire Watch

Extended Fire Watch Required Yes No

Extended Fire Watch Duration _____ hours

Instructions:

1. Verify that all applicable precautions have been implemented and that the site is safe for hot work.
2. Part 1 (first page) should be completed and retained for records.
3. Issue Part 2 to individual(s) conducting the hot work and see additional instructions on Part 2.
4. **Important note:** The facility should follow the guidelines listed on this form or those required by local jurisdiction, if more stringent.

Required Precautions Checklist

Review of the operations / tasks have been conducted and temporary Management of Change issued as necessary.

Work permits or line cutting permits have been reviewed and issued as necessary.

Sprinkler protection, hose streams and fire extinguishers are in service and operational.

Hot work equipment is in good repair and secured as necessary.

Within 35 ft (10 m) of task area(s)

Floors have been swept clean of combustibles.

Flammable liquids, combustible liquids, combustible dust, lint and oil deposits have been removed.

Eliminate explosive atmosphere.

Combustible floors have been wet down or covered with damp sand, metal or other noncombustible shields.

Combustible materials have been removed or protected with fire resistive tarpaulins or metal shields.

All wall and floor openings have been covered.

Fire resistive tarpaulins have been suspended beneath the work to collect sparks.

Work on Walls or Ceilings

Construction is noncombustible and without combustible coverings or insulation.

Combustibles have been removed away from opposite side of wall or ceiling.

Work on Enclosed Equipment

Equipment has been cleaned of all combustibles.

Containers have been purged of flammable, combustible liquids, vapors or gases.

Pressurized vessels and piping have been removed from service, isolated and vented (LOCK OUT TAG OUT).

Equipment with stored energy or electrical energy has been removed from service and isolated (LOCK OUT TAG OUT).

Fire Watch

Fire watch will be provided during the task and for a minimum of 1-hour after the task has been completed or for the extended fire watch duration.

Fire watch has been trained in the use of and provided with portable fire extinguishers or charged fire hose line(s).

Fire watch is posted on lower floors if an opening exists that would allow sparks or embers to drop down.

Fire watch is trained on how to properly report a fire alarm via the plant fire alarm procedures or fire alarm system.

Hot work area will be monitored for 3-hours after the job is finished.

PERMIT PROCESS – NOTIFICATIONS

- Required Notifications

- **University Police**
- Facilities Management

- Secondary Notifications

- Co-Workers
- Building Occupants

All notifications will help reduce false alarms!

PERMIT PROCESS – INSPECTIONS

- Immediate area must be **Fire Safe**
 - Sprinklers are operable
 - **Flammable dusts, lint, vapors or liquids are cleared**
 - Non-Moveable combustibles covered with fire-resistant material
 - Extinguishers must be immediately accessible
 - Fire watch must be assigned
 - Equipment must be in good repair
- Permits will not be issued until site has been inspected and deemed fire safe
- FM or Safety Offices can inspect at any time after permit is issued



Hot work procedure being used for welding sculpture



Hot work procedure being used for welding sculpture



Hot work procedure being used for welding sculpture



Welding sculpture

PERMIT PROCESS – RECORD KEEPING

- Permits available in Work Order Center or Safety Offices
- One completed copy must remain on jobsite
- One completed copy is retained at FM
- Duration:
 - 12 hour periods for spot work
 - 72 hour maximum for large ongoing jobs
 - Duration of construction on sites with restricted public access
 - Areas must be routinely inspected and remain fire safe at all times

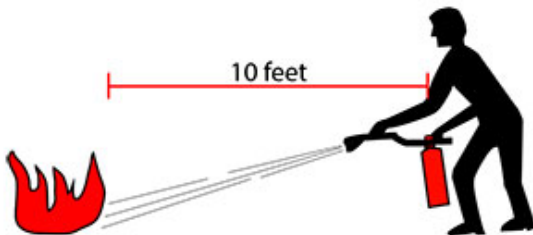
FIRE WATCH

- Those assigned to fire watch...
 - Must not be assigned other tasks
 - Should call authorities before attempting to fight a fire
 - Must know how to operate a fire extinguisher
- When using a fire extinguisher, remember P.A.S.S.
 - **P**ull the pin
 - **A**im at the base of the fire (stay back 10 feet)
 - **S**queeze the handle
 - **S**weep from side to side

PPULL



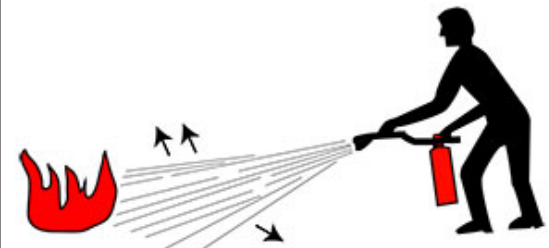
AAIM



SSQUEEZE



SWEEP



RESOURCES

- EHS Homepage: www.AState.edu/EHS
- Instructor Info: Jon Carvell; 680-4705, jcarvell@astate.edu
- Safety Offices: 972-2862
- Questions?