

<b>OREGON MILITARY DEPARTMENT</b>	<b>NUMBER: 99.200.14</b>
<b>ADJUTANT GENERAL PERSONNEL</b>	<b>EFFECTIVE DATE: Dec 16, 2020</b>
<b>SUBJECT: Hot Work Policy</b>	

**APPLICABILITY:**

This policy and the procedures contained herein are applicable to state employees.

**AUTHORITY/REFERENCE:**

OAR 437-004-2310, 29 CFR 1910.252

**ATTACHMENTS:**

1. Hot Work Permit Request.
2. Hot Work Safety Checklist.
3. Hot Work Permit.
4. Warning Sign.

**PURPOSE:**

Oregon Military Department (OMD) is committed to providing a work environment safe from injury or death caused by uncontrolled hazards in the workplace. OMD recognizes the potential for fire from hot work operations and has established this policy to help protect the safety of employees.

**DEFINITIONS:**

Hot Work: Any work that involves burning, welding, cutting, brazing, soldering, grinding, using fire or spark producing tools, or other work that produces a source of ignition.

Hot Work Permit: Process for safely conducting hot work operations in areas where flammable atmospheres could exist.

**GUIDANCE:**

**Hot Work Designated Areas:**

The following areas have been designated as approved hot work areas. Hot work may be performed in these areas without the issuance of a hot work permit. Even though a permit is not required in these areas, authorized personnel must inspect the area for combustibles and other

hazards before beginning hot work operations. A functioning fire extinguisher appropriate for the type of potential fire must be present at all times work is being performed. List designated areas:

Area 1: *specific to each location*

Area 2: *specific to each location*

### **Non-Designated Hot Work Areas:**

At a minimum, all of the following precautions must be met to perform hot work in a non-designated area:

- For hot work with the potential for wildland fire, refer to the Open Burn Plan for your location.
- If applicable, building fire system should be operational at the hot work location.
- All combustible materials within 35 feet of the hot work area shall be moved to a safe distance.
- If combustible materials cannot be moved, they must be protected by fire retardant covers or shielded with fire retardant metal guards.
- Appropriate personal protective equipment (PPE), based upon a hazard assessment, is provided to employees performing hot work.
- A fire watch is initiated during all hot work and for 30 minutes after it has been stopped.
- The hot work permit must be issued, and the area inspected, before work begins.

### **Special Precautions:**

Where any of the following conditions exist additional precautions shall also be taken above the basic precautions. The final protection measures will be determined by the hot work permit issuer prior to beginning work:

#### **Floor Openings/Coverings:**

The floors shall be protected from exposure to flames, sparks, slag or other hot materials whenever there are combustible floors or materials on the floor, floor openings or cracks in the floors. Protections may include:

- Fire-resistant shields or material.
- Wetting down floors.
- Covering floors with damp sand.
- Sweeping combustibles from floor.
- Additional protections deemed necessary by the hot work permit issuer.

#### **Wall Openings:**

The walls shall be protected from exposure to flames, sparks, slag, or other hot materials whenever there are combustible walls, wall openings, pipe penetrations or ducts. Protections may include:

- Fire-resistant shields or materials.

- Shutting dampers.
- Separate fire watch on the other side of the walls.
- Additional protections deemed necessary by the hot work permit issuer.

#### Potentially Explosive Atmospheres:

If there is a potential for mixtures of flammable gases, vapors, liquids or dust in the air, **no hot work will be conducted** until after the supervisor has completed a review and air monitoring has confirmed that there is no danger of an explosion.

#### Containers:

No hot work will be performed on used drums, barrels, tanks or other containers until they have been thoroughly cleaned. A supervisor must determine that no flammable materials and no substance such as greases, tars, acids, or other material are present which might produce flammable or toxic vapors if exposed to heat.

#### Protection of Personnel:

All personnel conducting hot work or assisting with hot work on elevated platforms, scaffolds, or runways will be protected from falling. The fall protection system will consist of either full railings or a fall arrest system with a full body harness, lanyard, and approved connection point. Hot work personnel will position all cables, hoses, and other equipment out of passageways and emergency egress paths whenever possible.

#### PPE:

All personnel conducting hot work or assisting with hot work must wear the appropriate personal protective equipment. The appropriate protection is determined by the Personal Protective Equipment Program survey and outlined in the PPE Program document. Do not begin any hot work operations without obtaining and wearing the required protection.

#### Permit System

In order to ensure adequate controls and safety precautions are being used in non-designated hot work areas, a hot work permit system will be used.

#### Procedures:

- Authorized person or supervisor will complete and submit hot work permit request (Attachment 1) for approval.
- Hot work approver will review planned safety precautions and inspect the hot work site using the hot work permit checklist (Attachment 2).
- Employees in the immediate area will be informed that hot work is going to be conducted and to avoid the area.
- Hot work approver will communicate any additional special precautions that need to be taken prior to beginning operations.

- If all necessary precautions have been taken and work can proceed, the hot work approver will complete the hot work permit (Attachment 3) and post the warning sign in a highly visible area (Attachment 4).
- Copies of all hot work permit information will be sent to the manager.
- Upon completion of the hot work operations and the 30 minute fire watch, the hot work issuer will inspect the completed job and ensure the area is clear and ready to return to normal operations.
- Hot work approver will inform the employees in the immediate area that work is completed and to return to normal operations.

#### Voiding Permits:

Hot work permits will be void and all hot work must not begin or must be immediately stopped if any of the following occur:

- Fire alarm sounds.
- Work has not begun within 60 minutes of approved time.
- Work has been suspended for more than 60 minutes.
- A work shift ends or there is a change in authorized or approval personnel.
- At any time the authorized employee, supervisor or hot work approver detects a danger or uncontrolled hazard.

Whenever a hot work permit is voided, a new permit must be issued to begin or continue hot work operations.

#### **Employee Training:**

Before any employees designated as hot work permit approvers, authorized personnel or supervisors are allowed to perform any hot work operations, they must first receive training. Periodic retraining will occur if an employee has a lack of knowledge, uses equipment improperly or if work tasks change. At a minimum, the training will include the following subjects:

- Fire prevention and protection:
  - Basic precautions.
  - Special precautions.
- Employee classifications and responsibilities:
  - Hot work approver.
  - Authorized personnel.
  - Supervisors.
  - Fire watch personnel.
- Designated hot work areas.
- Non-designated hot work procedures.
- Protection of personnel.
- Hot work permit system.
- Handling and storage of hot work materials.
- PPE selection and use.

All hot work procedures will be reviewed at least annually by an authorized employee who does not regularly work with the hot work procedure or by the supervisor. If any inadequacies are identified, the supervisor will update the procedures and program. The annual review will include a discussion between the reviewer and each authorized employee to determine if they understand their responsibilities under the program. Annual inspections are documented and maintained in individual training records.

Written training records, which include trainee names, the type of training provided and the dates when training occurred, will be kept by the supervisor for 3 years.

## **REPOSIBILITIES:**

All employees are required to follow the processes outlined in this policy.

### **Management Responsibility:**

- Develop safe usage protocols for all heat, flame and spark producing equipment.
- Provide appropriate training to all employees that perform or authorize hot work activities.
- Establish designated hot work areas.
- Establish procedures and a permit system for performing hot work in non-designated areas.
- Designate individuals who can approve hot work activities and issue permits in non-designated areas.
- Identify the proper personal protective equipment (PPE) needed during the hot work procedures.
- Complete air monitoring in the event a potentially explosive atmosphere is identified.
- Provide outside contractors working the OMD property with training and information on OMD hot work process and procedures.
- Retain records of training and all hot work permits.
- Review the program at least annually and when changes are needed or new equipment is added.

### **Supervisor Responsibility:**

- Ensure that only qualified and trained employees perform hot work activities.
- Ensure that employees who are found to have insufficient skills or understanding of hot work procedures receive retraining before conducting any further hot work assignments.
- Ensure that employees comply with all procedures and policies.
- Ensure that all hot work activities are approved prior to being performed in designated and non-designated areas.
- Identify dangerous situations, not suitable for hot work.
- Designate a fire watch employee for all hot work performed in a non-designated area during and for no less than 30 minutes after work is completed.
- Conduct final inspections after a fire watch period has concluded.

Supervisor or Approved Designee:

- Ensure all combustibles are removed from the hot work area or if they cannot be removed, ensure that guards are in place to confine the heat, sparks and slag.
- Inspect hot work areas and review planned safety precautions before hot work begins.
- Post hot work permits.

Authorized Personnel:

Authorized personnel include employees or contractors who are trained to perform hot work activities such as: soldering, welding, pipe-cutting, heat-treating, grinding, thawing pipes, hot riveting, torch-applied roofing, or any other application involving heat, sparks, or flames. Duties of authorized personnel include:

- Complete all hot work training.
- Seek approval and/or a permit to perform hot work prior to beginning operations.
- Perform hot work activities and procedures in accordance with this policy.
- Inspecting designated hot work areas for combustible and other hazards prior to beginning hot work.
- Inspecting hot work equipment to ensure it is in safe operating condition before beginning work.
- Retain control of the equipment while hot work is in progress.

Fire Watch Personnel:

A fire watch is a designated employee who monitors the hot work area for fires while work is being performed and for 30 minutes after its completion. Duties of fire watch personnel include:

- Maintain continuous watch over hot work activity during and after (30 minutes).
- Monitor adjacent areas for fires.
- Extinguish small, controllable fires with extinguishing equipment.
- Activate fire alarm if an uncontrollable fire occurs.
- Sign the hot work permit 30 minutes after the work is complete and re-posting signed permit in hot work area.
- After the hot work and 30 minute monitoring period is complete, periodically return to the area to check for fires for three hours.
- Ensure that the supervisor has conducted a final inspection after the fire watch period has concluded and signs off on the permit.
- If fire watch personnel must leave before the period is over, the supervisor must assign another trained person for the remaining time.

**INQUIRIES / QUESTIONS:** Questions pertaining to this guidance may be directed to Adjutant General Personnel Safety Officer at (503) 584-3588.



Tracy Garcia  
Director  
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Adjutant General Personnel

## HOT WORK PERMIT REQUEST

Before beginning hot work, ask yourself, "Can this job be avoided? Is there a safer way?"

**Hot work permits are required for any operation involving open flame, sparks or any heat-producing process. This includes, but is not limited to, brazing, cutting, drilling, welding, grinding, soldering and torch work.**

The person performing the hot work must fill out this form in its entirety and submit it to the safety director for approval prior to beginning the project.

### General Information

Unit: \_\_\_\_\_

Responsible person: \_\_\_\_\_ Phone number: \_\_\_\_\_

Date work to be performed: \_\_\_\_\_ Start time: AM /PM \_\_\_\_\_

Building: \_\_\_\_\_

Room number/area/equipment: \_\_\_\_\_

Type of work to be performed: \_\_\_\_\_

- 
- Welding     Cutting     Grinding     Soldering     Drilling     Pipe thawing  
 Brazing     Torch-applied roofing     Electric tools     Other heat-producing process

### Planned Safety Precautions

- Perform fire watch. (List \_\_\_\_\_ designated person.)
- Remove flammable and combustible materials within 35 ft. of work zone.
- Guard flammable and combustible materials that cannot be removed.
- Maintain appropriate and adequate fire extinguishers.
- Sweep floors within 35-ft radius of work zone.
- Protect floors within 35-ft radius of work zone by wetting, covering with damp sand or by using fire-resistant shields.
- Protect or shut down ducts and conveyors.
- Protect walls, partitions, ceilings and roofs with fire-resistant shields or guards.
- Other

**A completed and signed hot work permit is required before any hot work process can begin. Both pages of this permit and the warning page are required to be posted at the work area during the hot work process or for the approved permit period.**

**Attachment 1**

## Hot Work Safety Checklist

- Hot work process is located in the safest location possible or in an approved area.
- Precautions are in place to protect floors, walls, open doorways or open windows within a 35-ft radius of the work zone.
- Suitable fire extinguishing devices are available at the hot work site.
- If the worksite is inside a building equipped with a sprinkler system, the system is operational.
- If the worksite is inside a building equipped with a sprinkler system, the sprinkler heads within a 3-ft radius of hot work operations have been covered with a wet rag to prevent unwanted alarms.
- If the worksite is inside a building equipped with smoke detectors, the smoke detectors within a 3-ft radius of hot work operations have been covered to prevent unwanted alarms
- Hot work equipment is in good repair.
- Fire watch personnel are trained on the proper use of extinguishing equipment and alarm operation.
- Fire watch is posted and will remain for at least 30 min after all hot work has been completed.
- No flammable or combustible fibers, dust, vapors, gasses or liquids are in the area.
- Floors are swept clean within a 35-ft radius of the work zone.
- Combustible floors are wet, covered with damp sand or protected by fire-resistant shields.
- Combustible materials are relocated at least 35 ft away from the work zone.
- Immovable combustibles are protected with flameproof covers or otherwise shielded with metal guards.
- Ducts and conveyors are protected or shut down.
- Combustible walls, partitions, ceilings and roofs are protected with fire-resistant shields or guards.
- No danger exists from conduction of heat through noncombustible walls, partitions, ceilings and roofs.
- There is adequate clearance between combustible material and pipes and other metals.
- There is adequate ventilation to remove smoke, vapor and dust from the work zone.
- All required lockout/tagout procedures are in place.
- Hot work operators are adequately trained.
- Contractors are advised about all hazardous materials and conditions they may encounter.
- Supervisors and employees are notified of nearby hot work operations.



# HOT WORK PERMIT

## Authorization

I have personally inspected the location where the above work is to be done, have checked for compliance with safety precautions listed on this permit and authorize the work to be performed.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Permit #: \_\_\_\_\_

Authorized duration of  
Permit: \_\_\_\_\_ To: \_\_\_\_\_  
Date and Time Date and Time

**This permit is only valid as long as the working conditions existing at the time of issuance are maintained. The permit will automatically and immediately expire when any change in conditions adversely affects the safety of the work area while hot work is in progress. After a change occurs, another hot work permit must be issued before work can resume.**

**This permit and associated warning sign must be posted near the hot work site during all hot work.**

# WARNING

**HOT WORK IN PROGRESS  
WATCH FOR FIRE**

**Stop work immediately if an emergency alarm  
signals an emergency situation in or near your work area.**

**If you have questions about these hot work operations:**

**Contact:**

\_\_\_\_\_  
(Safety Director)

**Phone number:**

# WARNING