

## 2.26 WELDING, CUTTING AND BURNING PROGRAM (Hot Work)

### PERMIT PROGRAM

Welding, cutting, brazing, and other similar operations are referred to as "hot work" operations and can present a significant fire hazard in the workplace. This safety program provides instruction and guidance on permits for safe gas and electrical cutting and welding operations, as well as other "Hot Work" conducted on properties under the jurisdiction of UNM. This program complies with NFPA Standard 51B, "Fire Prevention in use of Cutting and Welding Processes," and OSHA 29 CFR 1910.251-257, subpart Q. This program supersedes any current University departmental procedures and shall be complied with by all faculty, staff and contract personnel.

#### A. SCOPE

The Welding, Cutting and Burning Program covers provisions to prevent the loss of life and property caused by fire during cutting and welding operations. This procedure applies to all faculty, staff, students and contract personnel who perform or are authorized to perform any welding, cutting, brazing or "Hot Work" at UNM. All work involving welding, cutting or brazing equipment shall be required to have an approved permit on site signed by an Authorized Safety Representative.

#### B. DEFINITIONS

**Affected Personnel** - Includes all operators, supervisors and Fire Watch personnel.

**Authorized Safety Representative** - An individual who has been properly trained in accordance with NFPA 51B and OSHA 29 CFR 1910 on the safety aspects of hot work hazards. This individual, who shall be designated in writing, is authorized (under the authority of SRS) to inspect hot work operation sites, ensure safe operation of hot work activities and issue permits.

**Combustibles** - Gases, liquids or solid materials that will ignite in the continued presence of an ignition source.

**Hazardous Location** - An area, by nature, which presents an unsafe working condition that could result in a catastrophic ignition of material in the area. Such areas include:

- Explosive material use or storage areas.
- Highly toxic material use or storage areas.
- Flammable storage or handling areas.
- Confined Spaces (see "Confined Space Entry Program").
- Any container which contains or has contained flammable or combustible liquids.
- High angle work performed on scaffolding, roof or other location over 6 ft, high in which a fall hazard exists.
- Any other area, which by nature of the material stored or used, could result in a fire or explosion due to the heat or sparks produced by the welding or cutting operation.

**Hot Tap/work** - A procedure used in the repair maintenance and service activities which involves welding on a piece of equipment (pipelines, vessels or tanks) containing natural gas or flammable liquids under pressure, in order to install connections or appurtenances. Commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam and petrochemical distribution systems.

**Hot Work** - Work involving gas or electric welding, cutting, burning, brazing, soldering or similar flame or spark-producing operations.

**Fire Watch (also known as Fire Guard)** - The process of observing an operation for any safety violations, maintaining a constant vigil for a fire caused by sparks or open flame during welding or cutting operations, and the responsibility for emergency extinguishment of any fire caused by the operation. The fire watcher/guard shall not be assigned other duties during the operation and will continue the fire watch for 30 minutes after the operation is completed.

**Operator** - The individual who actually conducts the welding operation. This person has been trained in welding operations and safety, and can provide documentation/certificates of the training by a recognized agency.

**Permit** (see Appendix C) - A checklist/tracking device used to authorize all Hot Work operations. Permits shall be issued on all Hot Work operations by an Authorized Safety Representative.

**SRS** – Safety and Risk Services

**Shielding** - A non-combustible material, such as a welding curtain or other means of placing a non-combustible barrier between the welding operation and any combustibles/flammables, or other materials with the propensity for burning.

**Welding** - A general term used to describe the joining of metal by fusing the pieces together utilizing heat. It often is used to describe brazing, cutting, tack-welding and soldering operations.

### **C. RESPONSIBILITIES**

1. The State Fire Marshal (SFM), known as the "Authority Having Jurisdiction," or (AHJ) has jurisdictional authority over the University in compliance issues dealing with the scope of this operation.
2. UNM SRS has the overall responsibility of ensuring compliance with this program and the overall responsibility of implementing the guidance and technical expertise needed to oversee the program for all facilities under UNM jurisdiction.
3. The Dean, Director or Department Chair of each affected department shall have the overall responsibility of ensuring that all persons engaged in hot work operations are provided with the needed equipment and resources to conduct safe operations.
4. Physical Plant Department, Area Managers and other University management or faculty who supervise students or staff using open flame devices shall be responsible for ensuring that all equipment is maintained in a safe operational manner. They shall also ensure that proper safety equipment, checklists and training are made available to each worker involved in welding operations. They shall have the overall responsibility to ensure that the proper safety checklists are complied with and that proper notifications are made prior to start of work.
5. The University's SRS Department will provide training and certification to Authorized Safety Representatives and other affected personnel.
6. Persons using open flame tools for cutting, welding, brazing or heat treating shall have the responsibility to comply with all safety checklists, ensure that their equipment is in proper working order, to ensure that the work site is made fire safe prior to start of work, and that the area is made fire safe prior to leaving the work area.
7. Any University department responsible for contracting with outside agencies to perform welding, cutting and burning shall have the responsibility to ensure that the contractors have a welding, cutting and burning program, or that they must comply with the provisions of this program.

### **D. PERMITS**

1. Hot Work Permit Information should include, at a minimum, the following elements:

- Requested hot work Date
  - Name of person performing the hot work operation
  - Description of hot work to be performed
  - Location of hot work
  - Fire watch duration (if applicable)
  - Fire watch inspector (if applicable)
  - Authorized Safety Representative Approval
  - A statement declaring that the permit is valid only on the date of issuance
2. All permits for hot work operations by University faculty, staff, and students shall be issued by SRS or an Authorized Safety Representative. Permits for contractors shall be issued by the contractor representative for safety. Requests for contractors to use the UNM permit will be considered on a case by case basis by SRS.
  3. The permit shall be issued in two parts: Part one (original) shall be posted at the work site for the length of the operation. The second part (copy) may be kept by the Authorized Safety Representative or department for their records, with a copy forwarded to SRS immediately after issuance. At the end of the hot work and upon completion of final check-off of the original permit, it must be returned to the issuer, who immediately forwards a copy to SRS for filing and entry into a database.
  4. Permit numbers shall be controlled and monitored by SRS, and must be associated with a TMA Work Order number created specifically for that hot work. Permit numbers are generated automatically when a service request for a hot work is submitted to SRS. The request number serves as the permit number.
  5. Upon completion of the work, the operator shall sign part one of the permit “work completed section” verifying that the work area is fire safe. The white copy of the permit shall be forwarded to SRS as appropriate immediately after completion of work.
  6. Permits shall be valid only for the time period noted on the form. Valid time periods are:
    - Daily: Valid from 8:00 a.m. to 8:00 a.m. (24 hours). This is issued with the assumption that one shift may work overtime to complete an emergency work order. If a new shift is to work on the same work order, a new checklist and permit must be obtained. Note- Permits issued at other times (i.e. 2pm) are valid until 2pm the following day).
  7. Permits shall be issued only to trained/certified welding operators. Documentation of training/certification may be requested prior to issuance of a permit. Training/certification must be from a recognized accredited agency.
  8. Authorized Safety Representatives and Operators shall conduct a safety inspection in accordance with the Hot Work Permit Checklist (see Attachment A), and Welding Equipment Safety Checklist (see Attachment C). These checklists shall be signed and maintained on site during the length of the operation.

## E. PROCEDURES

**To request a hot work permit, operators must first fill out and submit the online Hot Works Notification form (Appendix B) located on the SRS website. The Hot Works Notification should be submitted at least 48 hours to the start of the hot work. This will expedite the process when SRS or an Authorized Safety Representative issues the permit.**

## Prohibited Areas

Hot work operations should not be performed in any of the following areas:

- Where the sprinkler system has been disabled, unless a facility-wide fire watch has been implemented and the local fire department has been notified that the sprinkler system is nonfunctional.
- Where the potential for an explosive atmosphere exists or is likely to exist, including but not limited to those areas where mixtures of flammable gases, vapors, liquids, or airborne dusts exist.
- In or around uncleaned drums, tanks, or other containers that previously contained flammables or combustibles that could form an ignitable atmosphere.
- Where there are accumulations of combustible dusts.
- On any partition, wall, ceiling, or roof with a combustible covering, insulation, or of combustible construction.

## Prior to Hot Work Operations

1. Prior to any hot work operation, all combustible materials should be removed from within 35 ft (11 m) of the operation and the following criteria should also be met:
  - When combustibles cannot be relocated, they should be protected by an approved welding curtain, blanket, or pad. If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.
  - Ensure all fire protection systems, such as automatic sprinklers and fire alarms, are operable.
  - Remove all flammable/combustible liquids from the area.
  - Move exposed combustibles to a minimum of 35 ft. (11 m) from the area.
  - Clear floors to remove sources of dust.
  - Combustible floors should be wetted, covered with damp sand, or covered with an approved welding blanket, welding pad, or equivalent.
  - When floors have been wetted, personnel using arc welding or cutting equipment should be protected from possible shock.
  - Wall openings, cracks, joints, ducts, and other narrow spaces should be sealed closed and sealed with an approved fire-rated or non-combustible material.
  - Ducts and conveyor systems within the welding areas should be shut down.
  - Walls, partitions, ceilings, or roofs of combustible construction, adjacent to hot work operations should be protected by an approved welding curtain, blanket, or pad.
  - When welding is performed adjacent to sprinkler heads, the heads should be protected by a wet rag until the welding is completed.
  - Fire extinguishers and qualified users should be available during the operation. Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.
2. Physical Plant operators performing work shall coordinate work orders and permits through their respective Area Manager. Hot Work in hazardous locations must be coordinated with SRS.
3. UNM academic departments (i.e., College of Fine Arts, Engineering, Chemistry, etc.) with welding operations shall coordinate their permits through their Authorized Safety Representative.
4. Contractors conducting welding operations shall coordinate permits through the Contract Monitor, Project Manager, Facility Planning or Physical Plant as appropriate.
5. Operators should complete the Welding Equipment Safety Checklist (see Attachment C) prior to requesting a permit.

6. The operator should ensure that all notifications are made prior to start of work. This includes coordination with all departments, organizations and agencies who may be affected by the work. Work should not proceed if the operation will cause additional safety concerns. Examples include, but are not limited to, operations which will:
  - Block exits in a public assembly or other populated building during an event.
  - Activate fire detection or suppression systems.
  - Cause unnecessary tripping hazards or expose occupants to smoke, sparks or fumes.
  - Create a hazardous situation when performed in conjunction with another hazardous operation in the same area.
7. The operator shall ensure that all equipment used in the operation is in good working condition, that an appropriate fire extinguisher is on hand (all affected personnel must have annual fire extinguisher training), and that the permit is posted. The operator shall maintain a safe area throughout the operation. If at any time during the operation a hazardous condition is noted, the operation shall cease immediately until the hazard is resolved.
8. All personnel involved in or affected by the operation shall be fully briefed on the hazards involved, fire reporting procedures and evacuation procedures of the building. All fires, accidents, injuries, or alarm activations caused by the operation shall be immediately reported to Campus Police and/or SRS as appropriate, regardless of size, or amount of damage, or type of injury. In the case that the fire alarm sounds due to an emergency in another part of the building, the operation shall be shut down and the operator(s) will evacuate the building.
9. Appropriate Personal Protective Equipment (PPE) shall be worn during Hot Work operations. The required PPE will be dictated by the type of work to be performed and the hazards present during the work. A hazard assessment of the work will indicate the potential hazards and the necessary PPE. SRS can assist with these hazard assessments.

#### **Fire Watch Decision Guide**

A fire watch should be established if any of the following apply:

- Appreciable combustible materials are located within 35 ft. (11 m) of the area.
- Appreciable materials are more than 35 ft. (11 m) from the area, but these materials are easily ignitable by sparks.
- Wall or floor openings exist within 35 ft. (11 m) of the area and combustible materials are located on the opposite side of the opening(s).
- Hot work operations are performed on a wall or partition and combustible materials are in close proximity on the opposite side of the wall or partition.

The fire watch will require that an appropriately trained person remain with a fire extinguisher for one hour after the hot work operation has ended. The function of this person is to watch for smoldering materials or smoke in the area and extinguish any incipient fires that may erupt. The area should be inspected before the fire watch is terminated to ensure no smoldering combustion is present.

#### **F. SPECIAL OPERATIONS**

1. Confined Spaces: Welding, cutting, brazing or Hot Work operations performed in confined spaces (as defined by OSHA 1910.146) presents a special hazard in the way of ventilation, communication, access, evacuation and rescue. Special precautions must be taken to ensure the safety of all personnel entering a confined space to perform work (see Confined Space Entry Program). In addition to the standard checklist and permit procedures, a confined space permit may be required.
2. Hot Tapping: In addition to the standard safety precautions and permit, hot tapping operations shall be performed only by those individuals specifically trained in this type of work and coordinated through SRS. Additional precautions include, but are not limited to:

- a. Notification of the Albuquerque Fire Department (through SRS only);
  - b. Special evacuation procedures for exposures and occupants of adjacent buildings;
  - c. Shut down of utilities and or other operations in the area during hot tapping operations.
3. Roofing or High Angle Operations: This paragraph deals with welding operations conducted on roofs and high angle areas such as construction on multi-story structures. Where a fall hazard is present the work may require special precautions. Special precautions for fall protection and securing of equipment in case of an accident shall be implemented by the job supervisor prior to start of work. When possible, the welding cart should be positioned remotely from the operation or special procedures put in place to shut down the equipment in case of an accident.

**APPENDIX A**

**UNM WELDING AND CUTTING check all items before starting FIRE SAFETY CHECKLIST.**

This checklist is offered by Safety and Risk Services (SRS) as a tool to assist the welding operator in ensuring that all notifications and safety precautions are taken PRIOR to a welding. This checklist **shall** be used in conjunction with the "Welding Equipment Safety Checklist provided by SRS.

<b>SECTION 1</b>		<b>COORDINATION</b>				
1.	Area manager	(area 1 2 3 4 )	(name -	)	(# )	___ N/A___
2.	Campus Safety	(OSHA/ Fire Safety )	(name -	)	(# )	___ N/A___
3.	Building contact	(notification )	(name -	)	(# )	___ N/A___
4.	UNM Police	(If affecting security)	(name -	)	(# )	___ N/A___
5.	UNM Alarm Shop	(If affecting fire alarms)	(name -	)	(# )	___ N/A___
6.	Contractor	( if applicable)	(name -	)	(# )	___ N/A___

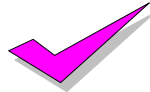
<b>SECTION 2</b>		<b>PRIOR WORK CHECKLIST</b>	<b>DONE/NOT APPLICABLE</b>
7.	Operators are briefed on the general scope of work and associated hazards.		___ N/A___
8.	Is the operation in a confined space? (if so, obtain a Confine Space permit)		___ N/A___
9.	Are all welding lines in good condition?		___ N/A___
10.	Is the welding cart placed so as not to block egress?		___ N/A___
11.	Are welding/cutting cylinders (cart) secure?		___ N/A___
12.	Is an adequate size/type fire extinguisher in place? (CO2, DC, Wtr)		___ N/A___
13.	Is the area free of combustibles? (35ft in all directions)		___ N/A___
14.	Is the area free of flammable liquids or solids? (50ft in all directions)		___ N/A___
15.	Is the area free of hazardous chemicals? (50ft in all directions)		___ N/A___
16.	Is welding/cutting being done on hazardous piping? (If so contact Safety for special safety recommendations)		___ N/A___
17.	Is the operation near any gas or high voltage lines? (If so, make special arrangements for safety)		___ N/A___
18.	Is the area adequately ventilated? (To allow for escape of smoke/gases to the outside of structure)		___ N/A___
19.	Are all possible avenues of smoke travel turned/cut off? (to prevent travel of smoke into building)		___ N/A___
20.	Is the work being done adjacent to combustible construction? (If so, check item below.		___ N/A___
21.	Are all welding curtains in place?		___ N/A___
22.	Has a fire watch been arranged? (if necessary)		___ N/A___
23.	Will this operation create a tripping or other safety hazard? (If so, contact SRS at 7-2753 prior to start of work)		___ N/A___
24.	Are any fire protection sprinkler, halon or dry chemical systems in the immediate area which may be activated from the work? (If so, take precautions and contact the appropriate shop for coordination)		___ N/A___
25.	Have all operators been briefed on fire reporting and evacuation Procedures for the facility or area?		___ N/A___
26.	Do all operators have adequate protective equipment on site and in use?		___ N/A___
27.	<b>HAS THE WELDING/CUTTING PERMIT BEEN PROPERLY FILLED OUT AND SIGNED BY AUTHORIZED PERSONNEL?</b>		___ N/A___

<b>SECTION 3</b>		<b>AFTER OPERATION IS COMPLETE</b>	
28.	Has firewatch been accomplished? (for hazardous areas -30 minutes after completion of operation)		___ N/A___
29.	Have all systems which may have been disconnected or shut down been returned to normal operation? (Contact appropriate department to ensure system has been restored in proper order)		___ N/A___
30.	Have the building occupants been notified that the operation is complete?		___ N/A___
31.	Have all barriers and welding equipment and curtains been removed?		___ N/A___
32.	Has the welding permit been completed and filed with the appropriate department?		___ N/A___

OPERATOR (PRINT) \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SUPERVISOR (PRINT) \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**UNIVERSITY OF NEW MEXICO**



**WELDING EQUIPMENT check all items before starting SAFETY CHECKLIST**

The following checklist is provided as a quick reference list for inspection of welding equipment and related accessories. The information is taken from OSHA 1910.125 Subpart Q on Welding Safety. It is a condensed version of the OSHA requirements and should not be construed as a complete listing. You are urged to consult the OSHA manual for complete information on Welding Safety. NOTE Any leak, damaged part, or sign of pressure relief will be reason to delay/stop the operation and put the unit out of service until the unit can be repaired.

<b>ITEM</b>	<b>CONDITION</b>	<b>IN/OUT OF SVS</b>
<b>1. HOSES</b>		
- Cracking, spliced sections, fraying, burns, worn areas are cause to render the hose unsafe.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Hose connections to manifold are not corroded, damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Hose is long enough to maintain safe distance from welding operation.	GOOD__FAIR__POOR__( )/( )	DATE _____
<b>2. TAPING</b>		
- Tape used for holding hoses together may not exceed 4" in every 12".	GOOD__FAIR__POOR__( )/( )	DATE _____
<b>3. CYLINDER</b>		
- Cylinder shall be legibly marked as to contents.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder is stored upright and secured	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder has inspector, test, pressure dates stamped.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder is free of dents, deformities, bulging,	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder threads are not damaged, worn, corroded.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder cap is in place when not used, cap is not dented or damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder valve operates freely, is not corroded or damaged	GOOD__FAIR__POOR__( )/( )	DATE _____
<b>4. CART</b>		
- Upright stantions are not corroded, bent, damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cylinder securing device is in place, is not being used by other people.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Fire extinguisher bracket is in place (w/extinguisher)	GOOD__FAIR__POOR__( )/( )	DATE _____
- Cart wheels are not flat, cracked or damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
- The framing is in good condition, (welds, bolts corrosion)	GOOD__FAIR__POOR__( )/( )	DATE _____
<b>5. MANIFOLD</b>		
- Gauges are sealed, needles move, housing is not damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Gauges are properly seated and tight on manifold.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Gauges are tested every five years.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Manifold pressure regulators move freely.	GOOD__FAIR__POOR__( )/( )	DATE _____
Manifold threads are not damaged, worn, corroded.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Pressure relief valve is in place, not damaged.	GOOD__FAIR__POOR__( )/( )	DATE _____
<b>6. PROTECTIVE EQUIPMENT</b>		
- Eye/face protection, shields adequately cover eyes/ face, neck and ears.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Goggles are of the proper shade number	GOOD__FAIR__POOR__( )/( )	DATE _____
- Skin protection adequately covers arms, wrists, legs, chest and neck.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Glasses are tempered free from air bubbles, cracks or other flaws.	GOOD__FAIR__POOR__( )/( )	DATE _____
- Safety toed shoes are in good repair.	GOOD__FAIR__POOR__( )/( )	DATE _____



**7. TORCH**

- Control valves move freely.
- Threads are not damaged, worn, corroded.
- Barrel is not clogged or tubes dented.
- Back flow check valves properly seated.

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

**8. ARC WELDING UNITS**

- All control apparatus is enclosed, except for wheels levers and handles.
- Live metal parts are enclosed and accessible only by means of tools.
- The unit is properly grounded.
- Leaks (cooling water, gas, oil shielding gas etc.)
- Manufacturers instructions are clearly labeled.
- Control guards (preventing accidental activation are in place.

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

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GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

**9. WELDING CURTAINS**

- Curtains in good condition, no holes, burn areas, rips etc.
- Curtains are properly labeled by the manufacturer.

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

**10. FIRE EXTINGUISHER**

(NOTED BECAUSE THE EXTINGUISHER SHOULD BE MOUNTED ON THE WELDING UNIT)

- Extinguisher cylinder is in good condition. no dents, corrosion.
- Pressure gauge in good condition (gauge is in the green).
- Extinguisher is of the right type (dry chemical only).
- Extinguisher cylinder is not damaged, dented, corroded.
- Extinguisher inspection dates are not overdue.

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

GOOD\_\_FAIR\_\_POOR\_\_( )/( ) DATE\_\_\_\_\_

WELDING UNIT(S) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ **WAS/WERE** INSPECTED ON:- Date \_\_\_\_\_

BY INSPECTOR/OPERATOR (print) \_\_\_\_\_ SIGNATURE \_\_\_\_\_

AREA/DEPT. \_\_\_\_\_

DISCREPANCIES NOTED WERE BROUGHT TO THE ATTENTION OF: \_\_\_\_\_

DEPT. \_\_\_\_\_

ON

(date) \_\_\_\_\_

**Instructions:** Before submitting this form, please review UNM's written Hot Work program on the Safety and Risk Services Department (SRS) website: [srs.unm.edu](http://srs.unm.edu). At least 48 hours to the start of the hot work, fill out this form in its entirety and press submit. An email will be sent to the email address you provided and to SRS and the Authorized Safety Representative in your department (PPD Area Managers and Supervisors, Ford Utilities Operations Manager and Supervisors, and Lab Managers). Depending on the type and location of the hot work, SRS or your department's Authorized Safety Representative will review the form and issue a hot work permit with a unique permit number. Rather than wait for SRS to issue you a permit number, you can generate your own by visiting the SRS website homepage and submitting a Service Request for a hot work permit. A Service Request number will be generated automatically, and can be used as the permit number. If you do not submit a Service Request after submitting this form, SRS will generate a hot work permit number and email it to you. Once the hot work permit has been issued, review the permit and post it at a visible location at the job site before beginning the hot work.

**Notice:** This official system is for exclusive use at the University of New Mexico. No test submissions are permitted.

Also review [OSHA standard 1910.146, Safety & Health Topics, Confined Spaces](#) before proceeding. You will be required to indicate below whether the area in which your project is being completed can be classified as a confined space. If you have questions, or need more information, please call 505-277-2753

\*Required field

**Building Number \***

**Building Name \***

**Enter the Floor or Room Where the Work Will Occur \***

**Please provide a detailed description of the specific location (manhole, ceiling, tunnel, vault, closet, etc.) and the purpose of the hot works. \***

Is the work being performed in a confined space? If yes, Indicate whether a confined space permit required?\*

Estimated Start Time of Project\*

 :  : 

Estimated End Time of Project\*

 :  : 

Type of Work\*

<input type="checkbox"/> Brazing	<input type="checkbox"/> Grinding	<input type="checkbox"/> Sweating	<input type="checkbox"/> Cutting	<input type="checkbox"/> Soldering
<input type="checkbox"/> Welding	<input type="checkbox"/> Other			

Type of PPE Being Used

Are you using a vendor to complete the work? Please indicate "yes" or "no". If "yes", please list the name of the vendor.\*

Will you generate your own hot work permit number by submitting a Service Request for hot work to SRS and using the Service Request number as your permit number? Please indicate "yes" or "no". If "no" SRS will generate and email you a permit number (may take up to 48 hours)\*

Description of Work\*

**UNM Employee Performing Work \***

**Person in Charge of Work \***

**Person in Charge Phone Number \***

**Person in Charge Email \***

**Your Department or Company Name \***

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**HOT WORK PERMIT**

Can the work be completed using a different method or at a less hazardous location, such as the maintenance shop?

Permit Number: \_\_\_\_\_

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 Exp. 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. Person Doing Hot Work: Document the time work started and post the permit at hot work location. After the Hot Work has been completed, document the date and time the work was completed and leave the permit at the site.

3. Fire Watch: Prior to leaving the Hot Work location conduct a final inspection, sign, and document the date and time the fire watch ended and notify the permit issuer that the Fire Watch has been completed.

4. Final Check Off: The individual who conducts the final check off must sign and document the date and time of the final check off and return the permit to the issuer. The issuer sends a final copy to SRS.

Hot Work Completed. Signed:

\_\_\_\_\_ Date/Time \_\_\_\_\_

Fire Watch Completed. Signed:

\_\_\_\_\_ Date/Time \_\_\_\_\_

Final Check-Off Completed. Signed:

\_\_\_\_\_ Date/Time \_\_\_\_\_

**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.