

HOT WORK PROGRAM

J.A. Rosa Construction, LLC

This program applies to the following applications:

BRAZING, TORCH CUTTING, GRINDING, SOLDERING, THAWING OF PIPES, OPEN
FLAME APPLIED ROOFING AND ANY OTHER TYPE OF "HOT WORK"

J.A. Rosa Construction
HOT WORK PROGRAM

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this policy is to prevent a fire that may result from conducting “hot work”.

1.2 SCOPE

1.2.1 For the purposes of this policy, “Hot Works” is defined as follows:

- The process where two or more parts are joined using heat near or above their melting point and the heated surfaces are caused to flow together.
- The process of applying a jet of hot gas to metal to be severed, gouged, separate, or pierced.
- Hot work means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations (§68.3). Facilities that perform hot work operations conducted on or near a covered process shall issue a hot work permit, and it must be kept on file until hot work operations are completed.

This definition includes, but is not limited to grinding, cutting, brazing, soldering, thawing frozen pipes by torch, torch applied roofing and welding (see Rosa Safety Manual - Chapter 10-Welding Safety Procedures).

1.2.2 This policy applies to all personnel (including contractors) who may be involved in “hot work” activities on the job site.

2.0 RESPONSIBILITIES

2.1 J.A. Rosa

The ultimate responsibility and authority for compliance with the Hot Work Program rests with J.A. Rosa and their Management. It is their responsibility to ensure that the J.A. Rosa Hot Work Program is implemented within their area and that all persons involved are properly trained to carry out those responsibilities.

2.2 Fire Safety Supervisors, Managers

Individuals who have supervisory responsibility play a key role in the J.A. Rosa Hot Work Program. It is their responsibility to ensure that:

2.2.1 Individuals working under their direction are trained and understand the applicable provisions of the Hot Work Program and that all requirements of any hot work permit are fulfilled before work is performed.

2.2.2 An approved Hot Work Permit is obtained from:

The person in authority of the project for any hot work conducted on the job site, or

The Fire safety Supervisor/Manager appointed for any hot work conducted on the job site.

The permit shall document that the fire prevention and protection requirements in 29 CFR §1910.252(a) have been implemented prior to beginning the hot work operations, indicate the date(s) authorized for hot work, and identify the object on which hot work is to be performed (§68.85).

2.2.3 Properly trained fire watches are assigned when required by the Hot Work Permit. A Fire Watch is an employee responsible for continuously observing hot work activities for the detection of and response to fires during those activities or otherwise sound the alarm. A Fire Watch shall have fire extinguishing equipment readily available and be trained in its use.

2.2.4 Designated areas are established for welding, cutting, brazing, torch soldering and grinding operations or other hot work where the potential fire danger is limited.

Where it is not possible for hot work to take place in an approved designated area, a Hot Work Permit must be used.

2.2.5 Procedures are established for hot work in other areas.

2.2.6 Employees performing hot work (and their supervisors) are required to be suitably trained in the safe operation of the equipment.

2.2.7 All affected employees are advised about flammable materials or hazardous conditions in areas where they will be working.

2.2.8 Outside contractors and service personnel are informed of the expectation that they must follow J.A. Rosa Hot Work procedures, including obtaining a Hot Work Permit.

2.2.9 Outside contractors are to have a verified J.A. Rosa Hot Work Permit for the work being conducted and maintaining a current certificate of insurance is on file with J.A. Rosa.

2.3 Individuals Performing Hot Work

Individuals performing the hot work play a very important role in the safety of all workers on the job site.

Responsibilities include:

- Obtaining written approval from the Fire Safety Supervisor or Manager for any hot work to be conducted on the job.
- Ensuring that conditions are safe and clear of fire/ignition hazard free before commencing the hot work.
- Being prepared to contact their supervisors should conditions change and warrant a re-evaluation of the circumstance to continue the hot work.
- Using appropriate personal protective equipment (PPE) while performing hot work (welding helmets, gloves, jackets, etc.).
- Completing the appropriate section(s) of the Hot Work Permit.

2.4 Firewatchers are responsible for:

Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires. 1910.252(a)(2)(iii)(B)

- Being aware of the inherent hazards involved in the hot work.
- Ensuring that safe conditions are maintained during the hot work.
- Ensuring that appropriate fire extinguishers are readily available.
- Knowing how to report a fire or other emergency.
- Maintaining the watch for 30 minutes after work.
- Using the appropriate PPE.
- Completion of the appropriate section of the hot work permit.

2.5 Firesafety Supervisors are responsible for:

Maintaining cutting or welding equipment in safe operating condition.

Ensuring the precautions listed on the Hot Work Permit are understood by the person(s) performing the permitted operations.

3.0 PERSONAL PROTECTIVE EQUIPMENT (1910.252(b))

- Helpers or Fire Watchers will be equipped with proper eye protection.

- Goggles or other suitable eye protection will be used during all gas welding or gas cutting operations.

Hot work operators must wear gloves, aprons and other protective gear consisting of heavy, non-flammable clothing such as leather, 100% cotton or wool to protect against sparks, heat, and heat radiation. Welding helmets or face shields will be used during all arc welding or arc cutting operations.

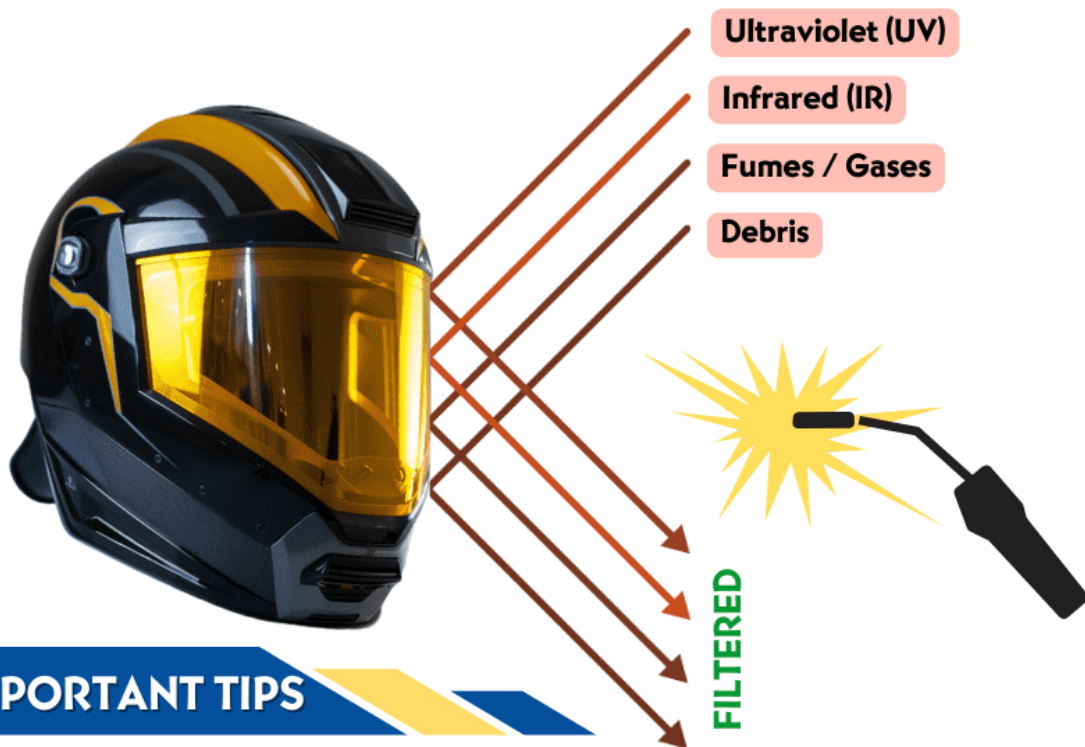
Clothing should include long-sleeved shirts, heavy denim jeans, high-top boots, leather gloves, a welding hood, and a cap. Avoid synthetic materials like polyester and any clothing with cuffs or holes, as they can catch sparks and melt onto the skin.

Welding Eye Protection



NEVER WELD WITHOUT EYE PROTECTION. Always use welding helmets, hoods, shields, or goggles suitable for your job. Here is what may happen if you weld without any of these:

- PAIN IN EYES • ARC EYES • BLURRED VISION • FOREIGN OBJECT INJURIES
- WATERY EYES • CORNEAL BURNS • RETINAL DAMAGE • LONG-TERM EFFECTS



IMPORTANT TIPS

- Ensure Your Helmet **FITS** Properly.
- Inspect for **DAMAGE** regularly.
- **STORE** the helmet properly when unused.
- Keep the lens **SCRATCH-FREE**.
- Check **BATTERY** of auto-darkening helmets.
- Have an **EMERGENCY** plan.

STANDARDS



- ✓ ANSI Z87.1
- ✓ CEN 1/1/1/1
- ✓ OSHA 1910.252



Pro Welding
HELMETS

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4.0 HOT WORK PROCEDURES

Before Starting Work

1. Obtain a Hot Work Permit if required, (see Appendix B): Secure a permit and ensure all conditions listed on it are met before beginning work.
2. Inspect and Prepare the Area:
 - Clear combustibles: Remove or shield all combustible materials from the work area, within a 35-foot radius, using fire-resistant blankets, curtains, or shields.
 - Floors swept and work areas are clear of all combustibles within a radius of 35' (10.5 meters).
 - Combustibles that cannot be moved are covered with fire retardant tarpaulin or are shielded by non-combustible material.
 - Control ventilation: Ensure adequate ventilation to disperse smoke, fumes, and toxic fumes.
 - Check floor and openings: Cover any floor or wall openings that could expose combustible materials in adjacent areas.
 - Smoke detectors located in proximity of the work area are covered to prevent false trips.

4.1 Hot Work Permit

The Hot Work Permit (see Appendix B) similar to a Confined Space Permit, is an internal document outlining the steps taken to mitigate fire hazards. The permits do not require review by any third-party authoritarian body.

The permit should include:

- Detailed work description and location,
- Site-specific risk assessment identifying hazards,
- Precautionary measures such as fire-resistant barriers and fire extinguishers,
- Designated fire watch for monitoring,
- Sign off from a competent supervisor before and after work.
- Duration of the work,
- Names of the authorized personnel, and
- Procedures for emergency response.

4.3 During Hot Work

Other precautions that must be taken during hot work include the following:

- Post the hot work permit in a conspicuous place in the immediate area of where the work is being conducted.
- Fire watch will be provided during hot work activity and for a period of 30 minutes after work is completed,
- Remove covers from any smoke detectors immediately upon completion of the hot work.

4.4 After Hot Work

There are some responsibilities that must be undertaken after hot work is completed:

- Patrol hot work area for 5 hours after job is completed.
- Keep the permit posted where work was performed for 24 hours.
- Equipment used to conduct the hot work should be stored properly.

4.5 Prohibited Hot Work Areas (1910.252(a)(2))

Hot Work will NOT be performed on metal walls, ceilings or roofs built of composite, combustible, and sandwich-type panel construction or having combustible coverings or in confined spaces where atmospheres of explosive gases, vapors or dusts exist or could accumulate.

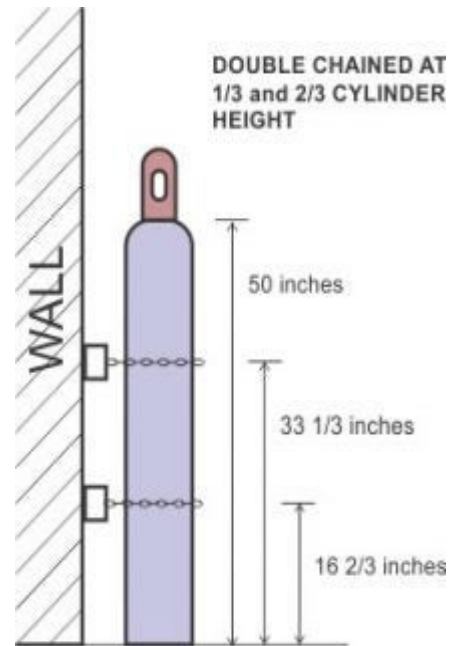
Hot work will NOT be performed on pipes that are in contact with combustible walls, ceilings, roofs or partitions where heat by conduction can cause ignition.

Hot work will NOT be performed on suspected lead-based painted areas and components where heat can create lead vapors or other inhalation hazards.

4.6 Storage of Cylinders

- Compressed gas cylinders will be stored at least 20 feet from highly combustible materials where the cylinders will not be exposed to excessive rise in temperature, physical damage or tampering by unauthorized persons.
- Cylinders must be chained to a permanent fixture or otherwise secured to prevent them from falling over.

- Oxygen cylinders will be separated from fuel gas cylinders or combustible materials at a minimum distance of 20 feet or by a non-combustible barrier at least 5 feet high, having a fire resistance rating of at least ½ hour.



5.0 TRAINING

5.1 Individuals Performing Hot Work and Firewatchers

All employees performing hot work or acting as the Firewatcher must be trained (see Appendix B). The training should contain at a minimum the following:

- What starts hot work fires and explosions.
- The proper use of fire extinguishers.
- How fires can be prevented and what makes hot work fires more severe,
- Explanation of the Company hot work policy, procedures, and responsibilities.

Copies of training records shall be maintained by company. All new employees will receive the hot work training and sign the employee acknowledgement form (Appendix C) before they are allowed to conduct hot work.

5.2 Subcontractors

- Subcontractors are required to provide training to their employees that will be involved in performing hot work. Any job where the contractor fails to follow JA Rosa's Hot Work Procedures will be shut down until the infraction has been corrected.
- All contractors must notify the appointed person in charge of hot work of any work that will be performed on the job site.
- When dealing with independent contract welders, it is the responsibility of the subcontractor to verify that the independent contract welder follows all safeguards and provide proof they have current liability insurance.

6.0 RECORD KEEPING

6.1 The Hot Work Permits

All hot work permits shall be returned to the person in charge of hot work for their record retention.

Records of hot work permits should be maintained for one calendar year. Hot work permits on file should be reviewed for program improvement or modification purposes prior to disposal.

7.0 HOT WORK AUDIT SHEET

The Hot work audit sheet must be used to evaluate the Hot Work Program in place. In preference, the auditor should not be a person usually conducting or being involved with hot work.

The auditor should monitor the program using the sheet (see example at Appendix D) while hot work takes place. Once the audit sheet has been filled out, it should be returned to the appointed management person for review and filing.

APPENDIX B

Date Issued:	Valid Until:
Location of Work:	
Type of Work:	
Physical Facility Phone Number:	
Hot Work Operator (Name and Title):	
Type of Welding Equipment:	
Required PPE:	

FIRE SAFETY PRECAUTIONS - Please mark each box as items are completed.

BEFORE WORK - All the following precautions must be taken:

- Cutting and/or welding equipment must be thoroughly inspected and found to be in good repair, free of damage or defects.
- Hot work operator equipped with communication device, protective equipment and are knowledgeable regarding the emergency response procedures for the facility.
- Floor areas under and at least 35 feet around the cutting/welding operation must be swept clean of combustible and flammable materials.
- Flammable and combustible liquids must be relocated at least 35 feet away from the cutting/welding operation.
- Ensure area is cordoned off to prevent unauthorized access during hot work activities.
- Fire watch person(s) are to be supplied with multi-purpose dry chemical, portable fire extinguisher such that it is immediately available for use and trained in its use.

Where applicable, the following precautions will also be taken before the work begins:

- Fire resistant shields must cover combustible floors and must be below any elevated cutting/welding operation.
- All floor and wall openings must be covered to prevent sparks/slag from traveling to other unprotected areas.
- Containers in or on which cutting/welding will take place must be purged of flammable vapors.
- Fire alarm system deactivation
- Fume collector or local exhaust ventilation in work area to remove smoke/vapor.
- Protective screens positioned to protect nearby personnel from hazardous light.

DURING / AFTER WORK - The following precautions will be taken:

- Fire watch must inspect the area for at least 30 minutes after all cutting/welding ceases.

This permit has been reviewed with and understood by the hot work operator before the commencement of work activities.

Physical Facility Supervisor Signature	Date
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Hot Work Operator Signature	Date
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The work area and all adjacent areas to which sparks and heat might have spread (including floor levels above and below and on opposite side of walls) were inspected 30 minutes after the cutting and or welding operations ceased for the day and were found to be fire safe.

Hot Work Operator Signature	Date
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EMPLOYEE ACKNOWLEDGEMENT FORM

Employee Acknowledgement Form Required Use of Hot Work Safety Program

Historically, uncontrolled hot work operations have destroyed millions of dollars worth of property each year. I understand that these incidents can seriously injure employees and cause the loss of jobs. I also understand that hot works losses are preventable, and as a part of said company's efforts to prevent such a loss, my involvement in a properly conducted hot work safety program is a requirement for work with this company.

This company utilizes a Hot Work Permit System as a part of the Hot Work Safety Program, which I acknowledge I am required to understand and use as part of any hot works activities conducted at the job site and at Rosa's facilities. I acknowledge that I have reviewed and completely understand the company's Hot Work Program.

I understand that hot work safety is the "first line of defense" to prevent losses from hot work operations. It is vital for my own safety, as well as the safety of those working around me, that I always understand and utilize safe hot work practices.

I acknowledge the hot works safety program and agree to do the following in each hot work situation conducted for this company:

- Assess each hot works situation to determine the true need for the hot work activity.
- Request a properly issued permit for ANY temporary hot work operation that cannot be moved to a designated hot work area (i.e.: weld shop).
- Perform hot work ONLY after a permit is issued by a person authorized by management (Firesafety Supervisor).
- Follow ALL applicable safety procedures as dictated by the hot work permit, including but not limited to proper preparation of the area and proper use of equipment.
- Ensure that a trained Fire Watcher is stationed at the site of the hot work, as well as adjacent areas and lower levels, during the work and for 30 minutes following.
- Ensure that a hot work safety patrol checks the area for a minimum of 5 hours after completion of the work.
- Ensure that hot work permits are obtained by anyone who performs hot work operations – including any colleagues or outside contractors.

I understand and acknowledge that the use of a hot work permit by itself will not prevent a fire from occurring. The permit is only a tool to be used by dedicated professionals, such as myself. Safe hot work operations must be strictly

observed because my personal safety and the safety of the entire facility depend upon it.

I understand that I am responsible for complying with applicable procedures in place to prevent fire loss or injury from hot work activities.

I understand and agree that I have read and will comply with the policies contained in the hot work safety program.

Employee Name (Printed Legibly)

Witness Signature

Employee Signature

Date

APPENDIX D

Sample Letter to Contractors

Contractors Hot Work Information and Responsibilities

Welcome to J.A. Rosa Construction

Management of this company strongly believes that fires caused by hot work can have a significantly adverse effect on our ability to conduct business. Because of this, we have established procedures and trained our employees to help minimize this hazard.

You are a partner in our continued success in preventing losses. We encourage your suggestions on how hot work can be avoided by using alternative methods. If hot work cannot be avoided, you are expected to strictly adhere to our Hot Work Program.

Our Fire Safety Supervisor will help you follow our procedures for hot work. If appropriate, the supervisor will introduce you to other workers in the area to discuss unique conditions you should be aware of before your work begins.

Please read and sign our company's Hot Work Program and use the Hot Work Permit. Thank you for helping us to improve our property and protect against loss.

Sincerely,

John Rosa

APPENDIX E

Hot Work Audit Sheet

Date of Audit:	Auditor:	Title:
Location/Department of Hot Work:		
Task Description:		

	Yes	No	See Comments
Hot Work Permit completed prior to start of work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot Work equipment inspected and in good condition prior to the start of work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot Work Permit posted in work area and plainly visible during work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spark Watcher in the immediate area? Name:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spark Watcher at exposed lower level and adjacent areas if applicable? Name:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All combustible materials removed or covered within a 35' (5 meters) radius?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All combustible materials removed or covered in exposed lower level and/or adjacent areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to work, floor thoroughly wet down within a 35' (5 meters) radius (except for arc welding)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to work, exposed lower and/or adjacent areas wet down (including arc welding)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conveyors and suction systems in the area shutdown?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All areas wet down after work has been completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spark Watchers remain in assigned areas for 1 hour after work has been completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot Work Permit posted in work area and plainly visible for 5 hours after work completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Auditor's observations and comments:

