

CREW DETAILS

IN AN EMERGENCY CALL:

Crew Leader:	Project Phone Number:
Crew:	

PROJECT OVERVIEW

Purpose of Project:	Date of Project:
<p>Benefit of Project: Enhances the structural integrity and safety of constructions. Ensures compliance with industry standards and quality requirements. Facilitates the creation of custom metal components and designs. Improves the efficiency and precision of metalworking processes. Provides strong and durable metal joints for various applications. Supports the repair and maintenance of existing metal structures.</p>	

HAZARDS

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Burns from hot materials	Thermal burns, improper handling of hot tools, accidental contact	Allows handling of hot materials with minimized risk of burns.	Ensure the use of heat-resistant gloves and clothing. Implement safe handling procedures for hot materials and provide training on first aid for burn injuries. (ALL)	Welders, material handlers	Before Measure: High After Measure: Low
Compressed air hazards	Equipment failure, accidental injuries, high-pressure risks	Facilitates the safe use of compressed air in welding environments.	Train workers on the proper use of compressed air equipment, ensuring no use for cleaning skin or clothing. Use regulated nozzles to control pressure, and regularly inspect hoses and connections for defects. (ALL)	Welders, maintenance workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Compressed gas cylinder hazards	Cylinder explosion, gas leaks, accidental damage	Allows safe use and storage of compressed gases essential for welding operations.	Secure cylinders upright and store them in well-ventilated areas away from heat sources. Train workers on proper handling, storage, and usage procedures, including leak detection and emergency response. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Confined space hazards	Oxygen deficiency, toxic atmospheres, difficulty escaping emergencies	Enables work in confined spaces with controlled risks.	Implement confined space entry procedures, including atmospheric testing, ventilation, and use of rescue equipment. Train workers on the specific hazards and emergency protocols associated with confined spaces. (ALL)	Welders, confined space workers	Before Measure: High After Measure: Low
Cuts from sharp edges	Lacerations, infections, improper handling injuries	Reduces injury risks during material handling.	Ensure proper handling and storage of materials with sharp edges. Provide cut-resistant gloves and train workers on safe cutting and handling techniques. Keep first aid supplies readily available in case of accidents. (ALL)	Welders, material handlers	Before Measure: High After Measure: Low
Electric shock	Contact with live parts, equipment failure, lack of grounding	Enables the use of electric welding equipment with reduced risk of electrical injuries.	Regularly inspect welding equipment for insulation integrity and proper grounding. Train workers on safe electrical practices, including avoiding contact with live electrical parts and using insulated tools. (ALL)	Welders, electricians	Before Measure: High After Measure: Low
Ergonomic strain from awkward positions	Musculoskeletal injuries, fatigue, reduced efficiency	Maintains worker comfort and reduces the likelihood of musculoskeletal injuries.	Train workers on proper posture and lifting techniques. Provide adjustable workstations and ergonomic tools. Rotate tasks to prevent prolonged exposure to awkward positions. (ALL)	Welders, workshop workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Exposure to asbestos during maintenance	Respiratory diseases, long-term cancer risk, contamination	Enables necessary maintenance while protecting workers from asbestos exposure.	Conduct asbestos surveys before maintenance work. If asbestos is present, employ licensed removal contractors and implement strict control measures, including PPE and containment procedures. (ALL)	Maintenance workers, welders	Before Measure: High After Measure: Low
Exposure to hazardous chemicals	Skin irritation, respiratory issues, long-term health damage	Allows the use of necessary chemicals with controlled exposure risks.	Implement proper storage and labeling of chemicals. Provide Material Safety Data Sheets (MSDS) and train workers on safe handling procedures and the use of personal protective equipment (PPE). (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Exposure to lead fumes	Lead poisoning, respiratory problems, neurological effects	Allows welding on lead materials while minimizing health risks.	Identify lead-containing materials before work begins. Use welding processes that produce less fume, provide suitable RPE, and ensure local exhaust ventilation is effective. Conduct regular health surveillance and provide workers with hygiene facilities to reduce contamination. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Exposure to magnetic fields	Interference with pacemakers, prolonged exposure risks, potential for health issues	Enables safe work in environments with electromagnetic equipment.	Train workers on the potential risks of magnetic fields, especially those with pacemakers. Limit exposure by maintaining safe distances and using shielding equipment when necessary. Conduct routine health monitoring. (ALL)	Welders, workers with medical devices	Before Measure: Med After Measure: Low
Exposure to metal fumes	Respiratory issues, long-term health effects, metal toxicity	Enables welding on various metals while controlling health risks.	Use welding processes that generate less fume and ensure effective fume extraction systems are in place. Provide appropriate RPE and conduct health surveillance for early detection of related illnesses. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Exposure to ultraviolet (UV) and infrared (IR) radiation	Skin burns, vision damage, long-term cancer risk	Allows welding processes to continue with reduced risk of radiation exposure.	Mandate the use of welding helmets with appropriate filter lenses. Install protective screens or barriers to shield other workers from radiation exposure. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Exposure to welding fumes	Fume inhalation, respiratory issues, long-term health effects	Allows for effective welding operations while minimizing health risks associated with fume inhalation.	Implement local exhaust ventilation systems to capture fumes at the source. Ensure welders use appropriate respiratory protective equipment (RPE) and conduct regular air quality monitoring to maintain exposure below occupational exposure limits. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Eye injuries from arc radiation	Corneal burns, permanent vision damage, exposure to intense light	Protects vision health, allowing welding activities to proceed safely.	Require welders to wear appropriate welding helmets with correct shade filters. Provide safety goggles for nearby workers and install welding curtains to protect others in the vicinity. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Failure of lifting equipment	Dropped loads, structural collapse, mechanical failure	Facilitates material handling while minimizing mechanical failure risks.	Conduct routine inspections and certification of lifting equipment. Train workers on safe lifting techniques and load limits. Ensure proper storage and maintenance of slings, hooks, and cranes. (ALL)	Welders, material handlers, crane operators	Before Measure: High After Measure: Low
Fire and explosion hazards	Ignition of flammable materials, explosive atmospheres, equipment overheating	Facilitates welding tasks while controlling the potential for fire-related incidents.	Establish designated hot work areas free of flammable materials. Implement hot work permits, maintain fire extinguishers nearby, and assign fire watchers during welding operations. (ALL)	Welders, fire watchers, nearby workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Gas leaks from torches	Fire hazards, inhalation of toxic gases, explosion risks	Enables safe use of gas torches for welding and cutting.	Regularly inspect and maintain gas torches, hoses, and connections. Use leak-detection solutions and train workers to recognize the smell of gas and respond to leaks immediately. Store gas cylinders properly to prevent accidental damage. (ALL)	Welders, maintenance workers	Before Measure: High After Measure: Low
Hand-arm vibration syndrome (HAVS)	Nerve damage, circulation issues, reduced grip strength	Allows the use of necessary tools with reduced risk of long-term health effects.	Use low-vibration tools and limit exposure time. Provide anti-vibration gloves and conduct regular health monitoring to detect early signs of HAVS. (ALL)	Welders, tool operators	Before Measure: High After Measure: Low
Hot work on closed containers	Explosions, flammable residue ignition, pressure buildup	Enables necessary work on containers while preventing explosions.	Ensure all containers are properly cleaned and vented before hot work. Check for flammable residues and test for explosive atmospheres. Provide hot work permits and train workers on the risks associated with closed containers. (ALL)	Welders, maintenance workers	Before Measure: High After Measure: Low
Improper grounding of equipment	Electric shock, equipment malfunction, fire risk	Minimizes electrical hazards while allowing safe operation of welding equipment.	Inspect grounding systems regularly and ensure all equipment complies with electrical safety standards. Train workers to recognize and report grounding issues. Use ground fault circuit interrupters (GFCIs) for additional safety. (ALL)	Welders, electricians	Before Measure: High After Measure: Low
Improper use of tools	Injuries from misuse, equipment damage, operational delays	Ensures safe and effective tool use, minimizing the risk of injuries and equipment damage.	Provide regular training on the correct use of tools, including specific instructions for power tools. Conduct periodic inspections to identify and remove faulty tools, and enforce the use of PPE, such as gloves and goggles, when handling tools. Display clear tool operation guidelines at workstations. (ALL)	Welders, maintenance workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Inadequate first aid	Delayed treatment, increased severity of injuries, non-compliance with regulations	Promotes prompt treatment of injuries, reducing the severity of incidents and ensuring compliance with safety regulations.	Ensure a trained first aider is always present on-site and easily accessible. Provide fully stocked first aid kits, maintain an up-to-date accident log, and conduct regular first aid training sessions for staff to enhance response readiness. Display clear signage indicating first aid locations. (ALL)	All workers on-site	Before Measure: High After Measure: Low
Inadequate qualifications/experience	Incorrect operation of equipment, increased risk of errors, injuries due to lack of knowledge	Ensures tasks are performed correctly and safely, reducing errors and accidents associated with inexperience.	Verify worker qualifications and certifications before assigning tasks. Provide thorough on-site training and supervision for less experienced workers, and pair them with experienced mentors. Regularly assess skills to ensure competency in handling specific tasks. (ALL)	Welders, apprentices, new workers	Before Measure: High After Measure: Low
Inadequate ventilation	Accumulation of hazardous fumes, lack of fresh air, respiratory problems	Ensures a supply of fresh air, reducing the accumulation of hazardous fumes and gases.	Design workspaces with adequate general and local exhaust ventilation systems. Regularly inspect and maintain ventilation equipment to ensure effective operation. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Manual handling injuries	Musculoskeletal disorders, back injuries, sprains	Facilitates material handling with reduced risk of injury.	Provide mechanical lifting aids and training on proper lifting techniques. Design workspaces to minimize the need for manual handling and conduct ergonomic assessments to prevent musculoskeletal disorders. (ALL)	Welders, material handlers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Noise-induced hearing loss	Hearing damage, inability to communicate effectively, long-term hearing impairment	Enables work in noisy environments while protecting hearing.	Conduct noise assessments and provide hearing protection such as earplugs or earmuffs. Implement engineering controls to reduce noise at the source and schedule regular hearing tests for workers. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low
Overheating of equipment	Equipment damage, fire risks, operational delays	Prevents equipment damage and reduces fire hazards.	Ensure welding equipment is rated for the intended use and conduct regular maintenance to prevent overheating. Train workers on recognizing signs of overheating and proper shutdown procedures. (ALL)	Welders, maintenance workers	Before Measure: High After Measure: Low
Poor lighting in work areas	Reduced visibility, errors during tasks, increased accident risk	Improves accuracy and safety during welding tasks.	Provide adequate task lighting with a color temperature suitable for precise work. Inspect and maintain lighting fixtures regularly, and ensure emergency lighting is available in case of power failures. (ALL)	Welders, workshop workers	Before Measure: Med After Measure: Low
Prolonged standing	Fatigue, lower limb discomfort, long-term musculoskeletal strain	Reduces strain on workers while maintaining productivity during welding tasks.	Provide anti-fatigue mats and encourage workers to take scheduled breaks. Rotate tasks to reduce the duration of standing and conduct ergonomic assessments to optimize workstation design. (ALL)	Welders, workshop workers	Before Measure: Med After Measure: Low
Radiation burns	Skin burns, long-term tissue damage, cancer risks	Allows welding tasks to be performed safely, minimizing the risk of radiation burns.	Ensure welders wear flame-resistant clothing that covers all exposed skin. Use welding curtains to protect nearby workers and enforce the use of PPE at all times during welding operations. (ALL)	Welders, nearby workers	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Skin irritation from metal dust	Rashes, allergic reactions, dermal abrasion	Allows work in dusty environments with reduced skin irritation risks.	Provide PPE such as long-sleeve clothing and gloves. Train workers on proper hygiene practices, such as washing exposed skin after work. Ensure effective dust extraction systems are operational in the work area. (ALL)	Welders, material handlers	Before Measure: Med After Measure: Low
Slips, trips, and falls	Tripping over equipment, slipping on surfaces, falling from heights	Promotes a safer working environment, reducing the likelihood of accidents.	Maintain clean and organized work areas. Use slip-resistant flooring and ensure proper storage of materials and equipment to keep walkways clear. (ALL)	All workers on-site	Before Measure: High After Measure: Low
Unsafe structures	Structural collapse, entrapment, worker injuries	Reduces the likelihood of collapses or structural failures, protecting workers and project integrity.	Conduct regular structural integrity assessments by qualified personnel, ensuring compliance with relevant standards. Use proper scaffolding, supports, and bracing for temporary structures, and restrict access to unsafe areas until repairs are completed. (ALL)	Welders, construction workers, nearby personnel	Before Measure: High After Measure: Low
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL)	All	N/A

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Extra notes & activity evaluation:

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Completed by

Reviewed/Approved by

Risk Assessment Date

Review Required Date