JOB HAZARD ANALYSIS (JHA)

Business name

Document: JHA-001 Rev 1
Prepared: Nov 9, 2026
Review by: Dec 9, 2026
Highest risk after controls: Medium

1. BUSINESS AND JOB DETAILS

Job	On-site welding	**Start date**	Nov 9, 2026
Working hours	7:00 am to 3:30 pm	**Trade**	Welding and fabrication

2. JOB STEPS, HAZARDS AND CONTROLS

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
1	Get a hot work permit and clear flammables from the area	Fire from hot works Flammable liquids and gases Rules: 29 CFR 1926.352 and NFPA 51B (35 ft rule also in 1910.252(a)); 29 CFR 1926.152	**Critical Possible / Fatality**	1.1 Use cold work methods where you can, such as bolting, press fittings or cutting with a saw instead of a torch. [Elimination] 1.2 Move anything that can burn at least 35 feet away, or cover it with fire blankets. [Engineering (guarding)] 1.3 Fire from hot works: see step 6 for the full controls [Administrative] 1.4 Use non-flammable or water-based products where you can. [Substitution] 1.5 Keep ignition sources away: no smoking, no hot work and no running engines near flammables. [Engineering (guarding)] 1.6 Store fuels and solvents in approved, closed containers in a ventilated area away from the work. [Engineering] 1.7 Refuel equipment outdoors with the engine off and cool. [Administrative] 1.8 Keep only what you need for the day on site. [Administrative] 1.9 Store gas cylinders upright, secured and outdoors. [Administrative] 1.10 Keep a suitable fire extinguisher where flammables are used or stored. [Administrative] 1.11 Wear chemical gloves and safety glasses when pouring or mixing. [PPE]	**Medium Rare / Fatality**	Site supervisor
2	Set up welding screens to protect others from arc flash	Eye injuries Public entering the work area	**High Possible / Serious injury**	2.1 Use tool guards and screens to stop flying particles. [Engineering] 2.2 Use dust extraction and water to keep dust out of the air. [Engineering] 2.3 Keep others out of the area when cutting, grinding or chipping. [Administrative] 2.4 Keep an eye wash station or eye wash bottles on site. [Administrative] 2.5 Wear safety glasses at all times, goggles for dust and chemicals, and a face shield for grinding. [PPE]	**Low Rare / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				2.6 Fence off the site with secure temporary fencing and lock the gates when you leave. [Engineering (guarding)] 2.7 Give pedestrians a safe, marked path around the work, with ramps for strollers and wheelchairs. [Engineering (guarding)] 2.8 Use hoarding, covered walkways or catch fans where work is above public areas. [Engineering] 2.9 Put signs at each entry: site name, contact number and "No unauthorized entry". [Administrative] 2.10 Make the site safe at the end of each day: cover holes, lower plant, remove ladders and lock tools away. [Administrative] 2.11 Use a spotter when moving plant or materials across public paths. [Administrative]		
3	Check leads and earth clamp, keeping leads dry	Electric shock from cords and power tools Slips and trips Rules: 29 CFR 1926 Subpart K	**High** **Possible / Serious injury**	3.1 Use battery-powered tools where you can. [Substitution] 3.2 Use GFCIs on all 120-volt, 15, 20 and 30 amp temporary receptacles, or a written assured equipment grounding conductor program run by a competent person with recorded tests (29 CFR 1926.404(b)(1)). [Engineering] 3.3 Keep cords off the ground and out of water, using stands or hooks. [Engineering] 3.4 Check cords, plugs and tools before every use. Tag out and remove anything damaged. [Administrative] 3.5 Do not use tools in rain or wet areas unless they are rated for it. [Administrative] 3.6 Wear safety boots and dry gloves. [PPE] 3.7 Plan walkways and keep them clear of materials, hoses and leads. [Elimination] 3.8 Run cords and hoses overhead on hooks or stands, or along walls, not across walkways. [Engineering] 3.9 Fill or cover holes, and lay boards or mats on muddy access paths. [Engineering] 3.10 Clean up offcuts, packaging and spills as you go, not at the end of the day. [Administrative] 3.11 Keep work areas, stairs and access paths well lit. [Administrative] 3.12 Wear safety boots with good grip, laced up. [PPE]	**Low** **Rare / Serious injury**	Site supervisor
4	Weld with fume extraction or a respirator, especially on galvanised steel	Welding and cutting fumes Burns from hot surfaces Rules: 29 CFR 1926 Subpart J	**Critical** **Likely / Serious injury**	4.1 Remove paint, galvanizing and coatings from the weld area first, or use a process that makes less fume. [Substitution] 4.2 Use fume extraction (local exhaust ventilation) close to the weld. [Engineering] 4.3 Weld outdoors or in a well-ventilated area, and keep your head out of the fume plume. [Engineering] 4.4 Never weld or cut in a confined space without testing the air and using forced ventilation. [Administrative] 4.5 Wear a powered air respirator or fitted respirator when extraction is not enough. [PPE]	**Medium** **Unlikely / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				4.6 Wear a welding helmet, welding gloves and flame-resistant clothing. [PPE] 4.7 Isolate heating systems and let parts cool before you touch them. [Elimination] 4.8 Fit guards or insulation on hot pipes and equipment. [Engineering] 4.9 Mark hot items with chalk or a "HOT" sign so others know. [Administrative] 4.10 Keep a first aid kit and cool running water nearby for burns. [Administrative] 4.11 Wear heat-resistant gloves and long sleeves. [PPE]		
5	Grind welds with guards on	Angle grinder injuries Loud noise Eye injuries Rules: 29 CFR 1926.52	**High Possible / Serious injury**	5.1 Use a guarded saw or a different tool where you can. [Substitution] 5.2 Keep the guard on and use the side handle. Never remove the guard. [Engineering] 5.3 Use the right disc for the job, rated for the grinder's speed. Check it for cracks first. [Administrative] 5.4 Only trained people change discs, with the grinder unplugged or the battery out. [Administrative] 5.5 Keep both hands on the grinder and let the disc stop before putting it down. [Administrative] 5.6 Use quieter tools and methods, such as cut-to-size materials, low-noise machines and battery tools. [Substitution] 5.7 Keep noisy plant away from work areas, and use screens or distance between the noise and people. [Engineering (guarding)] 5.8 Keep tools maintained and use mufflers on compressors and generators. [Engineering] 5.9 Limit time on noisy tools and rotate workers. [Administrative] 5.10 If you have to shout to be heard at arm's length, wear hearing protection. [Administrative] 5.11 Eye injuries: see step 2 for the full controls [Administrative]	**Medium Unlikely / Serious injury**	Site supervisor
6	Fire watch after finishing, then sign off the permit	Fire from hot works Fire and emergencies Rules: 29 CFR 1926.352 and NFPA 51B (35 ft rule also in 1910.252(a)); 29 CFR 1926 Subpart F	**Critical Possible / Fatality**	6.1 Use cold work methods where you can, such as bolting, press fittings or cutting with a saw instead of a torch. [Elimination] 6.2 Move anything that can burn at least 35 feet away, or cover it with fire blankets. [Engineering (guarding)] 6.3 Use fire-resistant screens to stop sparks reaching people or gaps in walls and floors. [Engineering] 6.4 Get a hot work permit before starting. [Administrative] 6.5 Keep a charged fire extinguisher and fire blanket at the work spot. [Administrative] 6.6 Keep a fire watch during the work and for at least 60 minutes after you finish (NFPA 51B), longer if the permit says so. [Administrative]	**Medium Rare / Fatality**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				6.7 Check for smoldering behind walls, in ceilings and under floors before you leave. [Administrative] 6.8 Wear flame-resistant clothing, welding gloves and eye or face protection. [PPE] 6.9 Provide fire extinguishers suited to the site, checked and easy to reach. [Engineering] 6.10 Keep exits and escape routes clear and signed. [Engineering] 6.11 Have a site emergency plan: alarm, exits, assembly point and emergency contacts. [Administrative] 6.12 Keep a stocked first aid kit and at least one trained first aider on site. [Administrative] 6.13 Know the site address and how emergency services get in. Call 911. [Administrative] 6.14 Go through the emergency plan with every worker and visitor at induction. [Administrative] 6.15 Keep flammable materials and rubbish away from exits and escape routes. [Administrative]		

Risk key: risk = likelihood x consequence on a 5 x 5 matrix. Low, Medium, High, Critical. Work must not start while the risk after controls is high or above. Controls are listed in order of the hierarchy of controls: Elimination, Substitution, Engineering (guarding), Engineering, Administrative, PPE.

3. PPE AND PERMITS

Required PPE	Permits and plans
Welding helmet (ANSI Z87.1) Welding gloves Safety-toe boots (ASTM F2413) Coveralls Half-face respirator (P100 cartridges) Hearing protection (earmuffs or plugs) Face shield (ANSI Z87.1) Safety glasses (ANSI Z87.1) Safety goggles (ANSI Z87.1) High-visibility safety apparel, ANSI/ISEA 107 Class 2 or 3 (Type R near roadways) Work gloves Cut-resistant gloves	Hot work permit (fire watch at least 60 minutes after, NFPA 51B)

4. PLANT AND EQUIPMENT

Plant / equipment	License or training needed	Inspection needed	Rego / ID	Last inspected	Certificate / report
Welding machine					
Angle		Visual check of cord, plug and guards before each day's use; if you run an assured equipment grounding program			

Plant / equipment	License or training needed	Inspection needed	Rego / ID	Last inspected	Certificate / report
grinder		instead of GFCIs, test every 3 months (29 CFR 1926.404(b)(1))			
Portable generator					

5. CREW TRAINING AND CERTIFICATIONS

Crew listed at sign-on below, with ticket and licence numbers.

6. EMERGENCY ARRANGEMENTS

Emergency number	911	**First aid kit**	In the work vehicle
Fire extinguisher	In the work vehicle	**Alarm and evacuation**	Shout for help and stop work. Make the area safe and go to the assembly point. Call the emergency number and send someone to meet the ambulance.
Reporting incidents	Report a fatality to OSHA within 8 hours, and an in-patient hospitalization, amputation or eye loss within 24 hours.		

7. MONITORING, REVIEW AND LEGAL BASIS

A competent person inspects the job site, materials and equipment before work each day and as conditions change (29 CFR 1926.20(b)(2)). Any time this JHA is revised, the affected crew is re-briefed and signs again.

Legal basis: OSH Act Section 5(a)(1) and 29 CFR 1926, Safety and Health Regulations for Construction (incl. 1926.20 and 1926.21). OSHA requires employers to find and fix hazards and to train workers on them. A JHA breaks the job into steps, lists the hazards in each step and the controls that protect the crew. General contractors often require one before you start.

Keep this JHA on site during the job, and keep it with the training and inspection records for at least 1 year after the job (longer if your state plan or general contractor requires it). OSHA does not set a retention period for JHAs themselves.

8. REVISION HISTORY

Rev	Date	By	What changed
1	Nov 9, 2026		First issue

9. SIGN-OFF

	Name	Signature	Date	
Prepared by				
Supervisor				
General contractor review				Accepted for use: Yes / No

By signing below, each crew member confirms they were trained on the hazards and controls in this JHA before work started, and will follow it. Stop work and tell the supervisor if conditions change.

Name	Role / company	Tickets / licences	Signature	Date

Name	Role / company	Tickets / licences	Signature	Date