



Job Hazard Assessment - This document is dynamic and subject to revision as conditions change.

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Client: Tri-Energy	Project: Fab Shop/Head Office	JHA Assessment Date: August 2026	Task Start Date: August 2026
JHA Title: Fabrication shop - Multiple Tasks & Duties	Supervisor(s): Mike Creasy	JHA Author: HSE Manager	

PPE Required:	- Gloves appropriate for task - Hearing protection above 85 dBA - CSA approved eye protection - CSA "Green Triangle" Safety Footwear	- FR Coveralls as per task - CSA Approved Hard Hat as per task - Fall Protection when required - above 10 feet - Dosimetry / respirator as per task (NDT, hydrotest)	List any other PPE below

TASK	Pre Control	HAZARDS	CONTROLS	Post Control
Start of Day / Crew Mobilization	M	- No record of employee sign-in or whereabouts during muster or emergency - Unclear duties or task assignments leading to miscommunication and unsafe work - Delayed hazard identification or incomplete pre-job briefing - Fatigue or distraction at shift start - Unauthorized personnel entering work area	- Require all workers to sign in/out and record arrival time before starting work in order to verify attendance at muster point. - Conduct tailgate / toolbox meeting to review daily tasks, hazards, and controls. - Assign clear roles and responsibilities; confirm understanding verbally. - Supervisor to review JHA and permits before work begins. - Maintain daily attendance log for emergency accountability. - Reinforce "Stop Work Authority" if duties are unclear or conditions change. - Encourage stretch-and-flex routine and hydration before physical tasks. - Workers must report to the supervisor if they are not fit for duty. Supervisors will assess readiness at shift start and remove anyone who appears unfit. Fit-for-duty expectations are reinforced during the tailgate, and workers must use Stop Work Authority if they cannot perform tasks safely. - Ensure visitor sign-in and escort procedures are followed.	L
Welding & Fabrication: <i>Cutting, fitting, tacking, grinding, welding, inspecting welds</i>	M	- Burns, UV radiation, fumes, and heat exposure - Fire or explosion from flammable materials - Sparks, flying debris, and airborne particulates - Electrical shock from welding equipment - Noise and vibration from grinding - Eye injury from arc flash or flying particles - Strain from awkward postures or repetitive motion - Inadequate ventilation or confined space hazards - Slips, trips, and falls from cluttered work areas - Pinch points and crush hazards from material handling.	- Verify all welding and grinding equipment is inspected & in safe working condition. - Maintain fire watch & remove combustible materials within 10 m of hot work area. - Use proper PPE: flame-resistant clothing, welding helmet with correct shade, safety glasses, face shield, gloves, and hearing protection. - Ensure local exhaust or fume extraction is operating effectively. - Confirm electrical cords and leads are intact and routed to prevent trip hazards. - Establish barricades and signage for hot work zones. - Maintain good housekeeping and clear walkways. - Use mechanical aids or team lifts for heavy materials. - Conduct pre-job tailgate meeting and review JHA/FLHA. - Verify hot work permit and emergency response plan are active. - Encourage micro-breaks and stretch-and-flex to reduce strain. - Ensure minimum PPE compliance and supervisor verification before work begins.	L

TASK	Pre Control	HAZARDS	CONTROLS	Post Control
Rigging & Hoisting <i>Lifting and moving loads with crane, hoist, chain fall, slings</i>	H	- Sling thrown over the load striking a worker on the opposite side. - Worker entering blind zone during sling placement. Loss of control of sling due to weight, momentum, or snagging - Miscommunication between riggers leading to unexpected sling movement - Dropped load from improper rigging or overloaded equipment - Struck-by injury from swinging or shifting loads - Pinch points and crush hazards between load and fixed objects - Sling, shackle, or hardware failure from wear, damage, or exceeding rated capacity - Unsecured or unbalanced loads shifting during lift - Personnel positioned under or near suspended loads - Equipment tip-over on uneven or unstable ground - Communication breakdown between rigger, signal person, and operator	- Establish a clear exclusion zone around the load; no workers permitted on opposite side during sling placement. - Use tag lines, poles, or extended tools to position slings instead of throwing by hand. - Maintain direct line-of-sight or use a designated spotter to confirm the opposite side is clear. - Communicate sling placement steps using standardized rigging signals or radio/hand signals. - Ensure slings are free of snags and the path is clear before lifting or positioning. - Supervisor verifies all workers understand the hazard and controls before rigging begins. - Inspect all rigging hardware before use; remove any damaged slings, shackles, or chain from service - Confirm load weight and rigging capacity meet or exceed load requirements - never exceed working load limit (WLL) - Use a qualified/competent rigger and a dedicated signal person for all lifts - Establish and maintain exclusion zone; no personnel under or in the path of a suspended load - Barricade and sign the lift area - Hold a pre-lift safety meeting to review lift plan, path, and communication signals - Use tag lines to control load movement - Ensure crane/hoist equipment has current inspection & is set up on stable, level ground - Maintain constant visual or radio communication between rigger and operator - Stop work immediately if load shifts unexpectedly or communication is lost	L
Lifting <i>Manual material handling</i>	M	- Strain or sprain from improper lifting technique - Overexertion from repetitive lifting or awkward postures - Dropped material causing foot, hand, or body injury - Pinch points when handling material with others - Slips, trips, and falls while carrying loads with obstructed view - Cumulative strain from repetitive tasks over a shift	- Use proper lifting technique - bend knees, keep load close, avoid twisting - Use mechanical aids (hoists, dollies, carts, forklift) for loads over safe manual limits - Team-lift or ask for help with heavy, awkward, or long loads - Keep pathways clear of debris, cords, and tripping hazards - Wear proper PPE - gloves, CSA footwear - Take micro-breaks and rotate tasks to reduce cumulative strain - Plan the lift/carry path before moving material; ensure clear line of sight	L



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TASK	Pre Control	HAZARDS	CONTROLS	Post Control
Hydrotesting	H	- Sudden release of stored pressure from piping/ component failure - Pressure bursts causing projectile fragments or high-velocity fluid discharge - High-pressure piping & fittings under test load - Pinch points from test equipment and hose connections - Slip/fall hazards from water spray or wet work surfaces - Equipment or fitting failure due to incorrect test pressure or procedure	- Follow written hydrotest procedure; verify correct test pressure before starting - Inspect all test equipment, hoses, and fittings prior to use; confirm rated for test pressure - Establish exclusion zone and post signage/barricades around test area during pressurization - No personnel in line with pressurized piping ends during test - Slowly and incrementally increase pressure; monitor gauges continuously - Have a qualified person control the pump/pressurization equipment - Fully depressurize and lock out equipment before disconnecting or adjusting fittings - Keep walkways clear and manage water/fluid spill promptly to prevent slips - Ensure emergency stop/shutdown procedure is understood by all crew before starting	L
NDT <i>Radiography and other non-destructive testing</i>	H	- Exposure to X-ray or gamma radiation - Unauthorized personnel entering radiography exclusion zone - Improper source handling or shielding failure - Radiation exposure from source not fully retracted/secured - Eye or skin exposure from dye penetrant chemicals or UV light (other NDT methods)	- Only certified/qualified NDT technicians perform radiography - Establish and clearly barricade/sign exclusion zone per regulatory requirements before work begins - Get approval from NDT technician prior to entering or remaining in work area - Use radiation survey meter to confirm boundaries and source security - Verify source is fully retracted & secured in shielded container before area is re-entered - Post radiation warning signage and restrict access during active exposure - Wear dosimetry as required; use proper PPE (gloves, eye protection) for chemical-based NDT methods - Ensure adequate ventilation when using penetrant/developer chemicals - Confirm all personnel are aware of exclusion zone and evacuate promptly when radiography begins	L
Operating Equipment <i>Forklift, man-lift, overhead crane, other mobile/shop equipment - complete Pre-Op Checklist</i>	M	- Pinch points and crush hazards from moving equipment - Property or equipment damage from collision or improper operation - Exhaust fumes accumulation in enclosed/indoor spaces - Equipment failure from undetected mechanical defects - Struck-by hazard to personnel in equipment travel path - Tip-over from operating beyond rated capacity or on uneven surfaces - Untrained or unauthorized personnel operating equipment	- Complete Pre-Op Checklist before every use; remove defective equipment from service and tag out - Use a spotter when visibility is limited or in congested areas - Obey equipment's rated load limits and manufacturer operating instructions - Limit indoor use of combustion equipment; ensure adequate ventilation or use electric equipment where possible - Sound horn/alarm when reversing - Maintain safe following/operating distance from personnel and other equipment - Park with brakes set, forks/attachments lowered, and keys removed when unattended - Only trained, ticked authorized and competency verified personnel operate equipment.	L



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TASK	Pre Control	HAZARDS	CONTROLS	Post Control
End of Day / Demobilization	M	- Incomplete equipment shutdown or securing, leading to hazards after crew departs - Fatigue-related incidents during clean-up and final tasks - Slips, trips, and falls from end-of-day housekeeping - Tools/equipment left in unsafe condition or location - Unresolved hazards not communicated to next shift	- Shut down, de-energize, and secure all equipment before leaving work area - Conduct end-of-shift housekeeping; return tools and materials to proper storage - Complete sign-out log and confirm all personnel are accounted for - Report any incidents, near misses, or outstanding hazards to supervisor before leaving site - Conduct a brief end-of-day debrief to communicate any changes for the next shift	L

Leadership Sign off

Shop Supervisor Name:		Signature:		Date:	
HSE Manager Name:		Signature:		Date:	



JHA - Job Hazard Assessment - Fabrication Shop

Please sign your name below to acknowledge that you understand and will follow the requirements and conditions outlined in this JHA.

[illegible]



All hazard ratings in this JHA shall be validated using the Risk Assessment Matrix. Workers are required to cross-check the selected consequence and likelihood levels against the matrix to ensure compliance with Tri-Energy's risk assessment methodology.

Risk Assessment Matrix									
Potential Consequences					Increasing Likelihood				
					1	2	3	4	5
	People	Property	Environ- ment	Reputation	Negligible	Minor	Moderate	Significant	Severe
0	No injury or illness	No damage	No effect	No impact	L	L	L	L	L
1	First Aid	Damage <\$2,000	< TDG limit	Slight impact	L	L	L	L	L
2	Dr visit req.	Damage <\$10,000	< TDG limit	Concern stays at location	L	L	L	M	M
3	Modified work < 5 days	Damage <\$25,000	> TDG limit on ground	Affect ability to work at loca- tion, regulators	L	L	M	M	H
4	Missing work (LTA)	Damage <\$100,000	Any into standing water body	Public response required	L	M	M	H	H
5	Permanent dis- ability or fatality	Damage >\$100,000	Any into flowing water system	On-going public response with lasting impacts	M	M	H	H	H