



# TASK INVENTORY

Division: Major Projects, Industrial Services, Field Services

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JOB PHASE	TASKS	HAZARDS	Severity (1-4)	Probability (1-5)	Risk Before	CONTROLS / STANDARDS	Severity (1-4)	Probability (1-5)	Risk After	Project Manager/Superintendent	Foreman	Third Party Contractor	Pipelitter/Apprentice	Equipment Operator (Dozer)	Equipment Operator (Excavator)	Equipment Operator (Zoom Boom Skid Stee)	Iron Workers/Apprentices	Scaffolders/Apprentices	Welder/Appntice	General Labourers	Site Safety Coordinator	Field Quality Control
					Risk (1-20) Green = Low Yellow = Medium Orange = High Red = Extreme				Risk (1-20) Green = Low Yellow = Medium Orange = High Red = Extreme													
Pre-Construction Site Tour	Travel to site	Collision with traffic/wildlife/equipment, rollover, vehicle breakdowns, inadequate communication method	4	3		Fleet Safety Journey Management (HSEMS - 21), Driving & Journey Management (SWP-28), Working Traveling alone (SWP-21)	4	3		✓	✓		✓	✓	✓	✓			✓	✓	✓	✓
	Travel with ATV / UTV	Collision with traffic/wildlife/equipment, rollover, equipment breakdowns, inadequate communication method	4	3		ATV Safety (SWP-01), Personal Protective Equipment (HSEMS-6), ATV/UTV training and/or competency, Manufacturers Operating Recommendations	4	2		✓	✓		✓			✓				✓	✓	✓
	Walk around location	Uneven/slippery ground, wildlife, severe weather, inadequate communication method	1	4		PPE (HSEMS - 6) - Proper footwear, traction aids where required, Using Non-Intrinsically Safe Tools (SJP-20)	1	3		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Measure for fabrication	Fall from heights, uneven/slippery ground conditions, over reaching/extending, exposure to toxic substances, cuts from sharp edges, working alone / delayed response to injury/incident	2	2		PPE (HSEMS - 6), Fall Protection (COP-06), Ladders (SWP-25), Working Alone (SWP-21)	1	2		✓	✓	✓	✓					✓				
Site Survey / Layout	Staking out site and locates	Uneven/slippery ground conditions, crush points/flying debris/muscle strains from hammer/post pounder/etc, wildlife, working in hot/cold (heat stroke/frost nip/frost bite/hypothermia)	1	4		PPE (HSEMS - 6, E.G.: Proper footwear, traction aids), Contractor Management (HSEMS - 18)	1	3			✓	✓										
Mobilization (MOB)	Loading / unloading trucks and trailers	Cuts from sharp edges/banding/tensioned load securement, crush or property/equipment damage potential from falling material/equipment or from mobile equipment, falls from height, strains from reaching/extending/heavy lifting	4	3		Loading Unloading Hauling Equipment (SWP-29), Cargo Securement (SWP-04), Material Handling (SWP-22), Forked Lifting Equipment (SJP-23), Ladders (SWP-25), Cargo Management Hazard Assessment	2	2			✓		✓	✓	✓	✓			✓	✓		
	Offloading equipment and materials	Equipment rollover/fall, crush potential, equipment/property damage, working alone, tension released from load securement (LoF)	4	3		Loading / Hauling / Unloading Equipment (SWP-29), Cargo Securement & Trailer Use (SWP-04), Ergonomics - Manual Material Handling (SWP-22), Equipment Competency Assessment	2	2			✓		✓	✓	✓	✓			✓	✓		
	Attach dozer blade	Crush potential between dozer and blade, pinch point between connecting parts of dozer and blade, overexertion/heavy lifting/awkward movements, uneven ground conditions	3	2		Installing Blade onto D6 (SJP-16), Removing Blade from Dozer (SJP-15)	2	2						✓						✓		
	Working around mobile equipment	Crush potential from moving mobile equipment, excessive exposure to noise	4	4		Mechanical Mobile Equipment Operations (SWP-44), Excavating and Trenching (SJP-30), Vehicle and Equipment Spotting (SWP-75)	4	2		✓	✓		✓	✓	✓	✓			✓	✓	✓	✓
Site Preparation	Pounding posts (manually)	Cuts from sharp edges, hand/finger crush, flying debris, overexertion, awkward/repetitive movement, contact with buried facilities	2	4		PPE (HSEMS - 6), Ground Disturbance (COP-07), Installing T-Post and Snow Fence (SJP-43)	2	2			✓									✓		
	Pounding posts (equipment)	Cuts from sharp edges, hand/finger crush, body crush from equipment, flying debris, contact with buried facilities	3	2		PPE (HSEMS - 6), Ladders (SWP 25), Ground Disturbance (COP-07), Installing T-Post and Snow Fence (SJP 43)	2	2			✓	✓	✓		✓					✓		
	Installing goal posts	Contact with overhead lines, bending/twisting/lifting overhead	3	2		PPE (HSEMS - 6), Ground Disturbance (COP-07), Installing T-Post and Snow Fence (SJP-43), Overhead Power Lines (Working Near) (SWP-24)	2	2			✓									✓		
	Attaching signs	Cuts from sharp edges or slipping tools, non-intrinsically safe tool (if applicable)	2	2		PPE (HSEMS - 6)	1	2			✓									✓		
Clear ROW / Lease	Chain saw operations	Rotating sharp chain, flying debris, crush potential from falling trees/brush	3	4		Chain Saw Operations (SWP-13), Forestry Logging Operations (SWP-65), PPE (HSEMS - 6)	3	2		✓							✓					
	Felling with excavator	Contact facility, equipment, or personnel from falling trees/brush, crush from mobile equipment, potential for trees to have grown over underground facility	3	3		Forestry Logging Operations (SWP-65), Ground Disturbance (COP-07), workers to avoid line of fire, Vehicle and Equipment Spotting (SWP-75)	2	2						✓								
	Felling with dozer	Contact facility, equipment, or personnel from falling trees/brush, crush from mobile equipment, potential for trees to have grown over underground facility	3	3		Forestry Logging Operations (SWP-65), Ground Disturbance (COP-07), workers to avoid line of fire, Vehicle and Equipment Spotting (SWP-75)	2	2					✓									
	Stumping	Rotating equipment/attachment, LoF - contact with stump when tension released, crush from mobile equipment, potential for trees to have grown over underground facility	3	3		ROW Preparation (SJP-28), Ground Disturbance (COP-07)	2	2					✓	✓								
	Piling brush	Crush from mobile equipment or trees/brush being moved, entanglement with equipment components (spill/equipment failure)	3	2		PPE (HSEMS - 6), Mechanical Mobile Equipment Operation (SWP-44)	2	2					✓	✓			✓					
	Burning	Direct or referred contact with fire, dry or excessively flammable vegetation	3	2		ROW Preparation (SJP-28), Brush Pile Burning (SWP-86), Fire Extinguishers (SWP-05), Forest and Prairie Protection Act (Fire extinguisher, pulaski axes, fire supression)	2	2					✓	✓			✓					
Prepare ROW / Lease	Top soil / sub grade stripping with dozer	Crush by dozer, contact with overhead or underground facilities	4	3		ROW Preparation (SJP-28), Ground Disturbance (COP-07), Mechanical Mobile Equipment Operation (SWP-44)	2	2					✓									
	Top soil / sub grade stripping with excavator	Crush by excavator, contact with overhead or underground facilities	4	3		ROW Preparation (SJP-28), Ground Disturbance (COP-07), Mechanical Mobile Equipment Operation (SWP-44)	2	2						✓								
	Mounting and dismounting (equipment & vehicles)	Slippery or sharp edged components on equipment, missed footing, raised surfaces with no guardrail (tall tracks, truck decks)	2	4		Maintain three point contact, clean off boots, avoid parking on slope or ice where possible	2	2		✓	✓		✓	✓	✓	✓	✓					
	Rip rap install	Crush from mobile equipment or rocks, hard contact with equipment components (spill/equipment failure)	4	2		ROW Preparation (SJP-28), Ground Disturbance (COP-07), Mechanical Mobile Equipment Operation (SWP-44)	2	2					✓	✓								
	Matting install with excavator	Crush from mobile equipment or under a dropped mat, incorrect and/or overly aggressive handling of mat	4	2		Mats / Matting (SWP-70), Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6)	2	2						✓			✓					
	Finish grade	Crush by mobile equipment, contact with overhead or underground facilities, inadequate sloping/run-off grading	4	2		Mechanical Mobile Equipment Operation (SWP-44), As per site direction	2	2			✓			✓						✓		
	Spreading gravel with skid steer	Crush/contact from mobile equipment, wear & tear on equipment components	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6)	2	2		✓	✓						✓			✓		
	Spreading gravel with loader	Crush/contact from mobile equipment, wear & tear on equipment components	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6)	2	2					✓									
	Spreading gravel with dozer	Crush/contact from mobile equipment, wear & tear on equipment components	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6)	2	2					✓									
	Spreading gravel with shovel	Overexertion/heavy lifting, repetitive motion, bending/twisting, sharp edges, burs, or slivers on shovel/handle	2	4		HSEMS Section 6 - PPE, Ergonomics - Manual Material Handling (SWP 22)	2	2		✓	✓	✓		✓	✓	✓				✓		



	Install loose shipped items	Crushes, heavy lifting, cuts, falls from heights, dropped objects, equipment/property damage	3	3		Material Handling (SWP-22), Rigging (SWP-54), Cranes, Hoists and Lifting Devices (SWP-34), Critical Hoisting (SWP-41), PPE (HSEMS - 6), Ladders (SWP-25), Aerial Work Platforms (SWP-93), Scaffolds and Temporary Platforms (SWP-56), Dropped Object Hazard Management (SWP-85), Ergonomics - Manual Material Handling (SWP-22), Safe Knife Use (SWP-76), Wrench Use (SWP-74)	2	2						✓				✓		✓	✓		
	Modify existing equipment	Crushes, heavy lifting, cuts, falls from heights, dropped objects, equipment/property damage, stored energy	3	3		Change Management (SWP-37), Material Handling (SWP-22), Rigging (SWP-54), Cranes, Hoists and Lifting Devices (SWP-34), Critical Hoisting (SWP-41), PPE (HSEMS - 6), Ladders (SWP-25), Aerial Work Platforms (SWP-93), Scaffolds and Temporary Platforms (SWP-56), Dropped Object Hazard Management (SWP-85), Ergonomics - Manual Material Handling (SWP-22), Safe Knife Use (SWP-76), Wrench Use (SWP-74)	2	2						✓				✓		✓	✓		
	Install vessel internals	Confined spaces, hazardous atmosphere, congested work space, cuts, crushes, low light/visibility	3	2		Confined Space Entry (COP-03), Respiratory Protective Equipment (COP-02), Material Handling (SWP-22), Rigging (SWP-54), Cranes, Hoists and Lifting Devices (SWP-34), Critical Hoisting (SWP-41), PPE (HSEMS - 6), Ladders (SWP-25), Scaffolds and Temporary Platforms (SWP-56), Dropped Object Hazard Management (SWP-85), Ergonomics - Manual Material Handling (SWP-22), Safe Knife Use (SWP-76), Wrench Use (SWP-74)	2	2						✓				✓		✓	✓		
	Equipment Alignment	Crushes points (moving/sliding equipment, tool slips), stored energy (E.G.: come-a-long)	3	3		As per Manufacture's Specifications, PPE (HSEMS - 6)	2	2						✓				✓		✓	✓		
	Pre-service equipment	Cuts, electric shock, pinch points, spills	2	3		As per Manufacture's Specifications, PPE (HSEMS - 6)	2	1						✓									
Scaffolding	Erect/dismantle/modify scaffolding	Pinch/crush, strains, splinters, falling objects, falls from heights, rescue limitations	4	3		Scaffolds and Temporary Platforms (SWP-56), Fall Protection (COP-06), Dropped Object Hazard Management (SWP-85)	3	1				✓							✓				
	Working from scaffolding	Falling objects, falls from heights, overloaded scaffold, uneven ground, limited egress, limited rescue capabilities, congested work area	4	3		Scaffolds and Temporary Platforms (SWP-56), Fall Protection (COP-06), Dropped Object Hazard Management (SWP-85)	2	2				✓		✓				✓	✓	✓	✓	✓	✓
Fabricate Structural & Piping	Refer to "Fabricating" THA	Refer to "Fabricating" THA	4	3		Refer to "Fabricating" THA, + environmental specific hazards if completing on site						✓									✓		✓
Stress Relieving	Working around Stress relief	Hot surfaces	2	1		Contractor Management (HSEMS-18)	2	1					✓	✓									
NDE	Working around Radiography	Radiation exposure	2	1		Radiation (SWP-15), Contractor Management (HSEMS-18)	2	1					✓	✓									
	Working around Magnetic particle	Chemical exposure, equipment damage	1	1		Contractor Management (HSEMS-18)	1	1					✓	✓									
	Demagnetizing pipe	Electrical shock, equipment damage (E.G.: phones in vicinity of demag-machine), heavy/awkward lifting	2	3		Contractor Management (HSEMS-18), Manufacturers Instructions, PPE (HSEMS - 6), Ergonomics - Manual Material Handling (SWP-22)	2	2				✓	✓	✓						✓			
	Working around Ultrasound	Line of fire	1	1		Contractor Management (HSEMS-18)	1	1					✓	✓									
Bolt Up & Torquing (process piping systems)	Bolt up	Heavy lifting, strains, cuts, line of fire, pinch points (tool slips, flanges coming together, etc.), chemical exposure, dropped objects, bolt-ups at heights	3	4		Lock-Out - Tag-Out (COP-05), Dropped Object Hazard Management (SWP-85), Wrench Use (SWP-74), PPE (HSEMS - 6), Pipefitter Apprenticeship, Ladders (SWP-25) Scaffolds and Temporary Platform (SWP-56), Fall Protection (COP-06)	2	2						✓							✓		
	Torquing (Hand Tools)	Heavy lifting, strains, cuts, line of fire, pinch points (tools slips, incorrect tool for job causing tool to fault)	2	4		Wrench Use (SWP-74), Contractor Management (HSEMS-18), Pipefitter Apprenticeship, Ladders (SWP-25) Scaffolds and Temporary Platform (SWP-56), Fall Protection (COP-06)	2	2					✓	✓							✓		✓
	Hammer wrenching	Crush points, noise, line of fire, tool failure, flying debris	3	4		PPE (HSEMS - 6)	3	3						✓							✓		
	Impact Gun	Tool failure, stored (pneumatic) energy, unsecured air hose, improper fitting rating, improper tool use, noise	2	3		Wrench Use (SWP-74), Noise Control and Hearing Conservation (COP-04), PPE (HSEMS - 6)	2	2						✓							✓		✓
	Mechanical torquing (HY-TORQ)	Hand crush between HY-TORQ and flange/bolt/steel, ergonomic strain	3	4		Competent for equipment being used, Hydraulic Torque Wrench Use (SWP-83), Wrench Use (SWP-74), PPE (HSEMS - 6), Noise Control and Hearing Conservation (COP-04)	2	2				✓	✓	✓									
Pressure Testing	Pressure testing hydrostatic	Spill, equipment/material failure, stored pressure, chemical exposure, strains, missed check valves, improperly isolated system	4	4		Pressure Testing - Hydrostatic (SJP-09), Breaking System Integrity (SWP-03), Rigging (SWP-54), QC/QA Procedures, Appropriate Governing Bodies Standards (ABSA, CWB, etc), PPE (HSEMS - 6), Wrench Use (SWP-74)	3	2				✓	✓		✓						✓	✓	✓
	Pressure testing pneumatic	Equipment/material failure, stored pressure, explosion, flying debris, unsecured air hose, chemical exposure	4	4		Pressure Testing Pneumatic (SJP-10), Breaking System Integrity (SWP-03), Rigging (SWP-54), QC/QA Procedures, Appropriate Governing Bodies Standards (ABSA, CWB, etc), PPE (HSEMS - 6), Wrench Use (SWP-74)	4	2				✓	✓		✓						✓	✓	✓
Coatings	Abrasive blasting	Chemical/respiratory exposure, noise, high pressure, line of fire, flying debris, environmental	3	3		PPE (HSEMS - 6), Abrasive Blasting (SJP-22 & SWP-78), Contractor Management (HSEMS-18)	2	3					✓										
	Buffing/coating removal	Chemical/respiratory exposure, noise, high pressure, line of fire, flying debris, respiratory, environmental	2	4		PPE (HSEMS - 6), Grinder Operations (SWP-26), Respiratory Protective Equipment (COP-02), Noise Control and Hearing Conservation (COP-04), Pipeline Coating Removal (SJP-37)	2	2						✓							✓		
	Applying Internal coatings	Chemical exposure, cuts, flammable gases/mists	2	1		Contractor Management (HSEMS-18)	2	1					✓										
	Pipe Prime Coat and Paint	Chemical exposure, cuts, flammable gases/mists	2	2		Product Specific Training, Contractor Management (HSEMS-18), Respiratory Protective Equipment (COP-02), Pipe Coating (SWP-84), Propane Cylinders and Torches (Use, Care, Handling) (SWP-35), Confined Space Entry (COP-03)	2	2					✓										
	Pipe Wrapping & Coating	Chemical exposure, cuts, flammable gases, hot surfaces	2	3		Product Specific Training, Contractor Management (HSEMS-18), Respiratory Protective Equipment (COP-02), Pipe Coating (SWP-84), Propane Cylinders and Torches (Use, Care, Handling) (SWP-35), Confined Space Entry (COP-03), Joint Protection / Sleeving (SJP-27), Jeeping / Holiday Detection (Pipeline) (SJP-03)	2	2					✓										
	Pipe Pickling	Chemical exposure, acid/caustic burns, respiratory	3	4		Respiratory Protective Equipment (COP-02), SDS for product (SDS Binders), PPE (HSEMS - 6)	3	2						✓							✓		
Install Structural	Erect structural steel	Pinch/crush points (steel on steel, rigging tension/slips, etc.), dropped loads/objects, Falls from Heights	4	4		Cranes, Hoists and Lifting Devices (SWP-34), Critical Hoisting (SWP-41), Rigging (SWP-54), Dropped Object Hazard Management (SWP-85), Fall Protection (COP-06), Ladders (SWP-25), Scaffolds and Temporary Platforms (SWP-56)	4	2										✓					
	Bolt up structural steel	Pinch/crush points (steel on steel, tool slips, blind install of bolts/fasteners, etc.), dropped loads, noise, Falls from Height	3	3		PPE (HSEMS - 6), Wrench Use (SWP-74), Noise Control and Hearing Conservation (COP-04), Fall Protection (COP-06), Ladders (SWP-25), Scaffolds and Temporary Platforms (SWP-56)	2	2										✓					
	Impact Gun	Tool failure, stored (pneumatic) energy, unsecured air hose, improper fitting rating, improper tool use, noise	2	3		Wrench Use (SWP-74), Noise Control and Hearing Conservation (COP-04), PPE (HSEMS - 6)	2	2										✓					
	Grout structural steel	Chemical exposure, awkward body position	2	2		Contractor Management (HSEMS-18), SDS for Product (SDS Binders)	2	1					✓						✓				
Install Pipe Systems	Pipe shoes/Brackets/clamps	Pinch/crush points (steel on steel, tool slips, blind install of bolts/fasteners, etc.), strains, line of fire	2	3		Wrench Use (SWP-74), PPE (HSEMS - 6)	2	2				✓		✓				✓					
	Pipe spool & valve installs	Pinch/crush points (steel on steel, tool slips, etc.), suspended loads, noise	3	4		Wrench Use (SWP-74), Rigging (SWP-54), Critical Hoisting (SWP-41), Pipeline Set-In (Above Ground) (SJP-31), Staging Large Valves and Components (SJP-41), Aerial Work Platforms (SWP-93), Ladders (SWP-25), Scaffolds and Temporary Platforms (SWP-56), Fall Protection (COP-06)	2	2				✓			✓								

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