



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 Steer)	Iron Workers/Apprentices	Scaffolders/Apprentices	Welder/Apprentice	General Labourers	Site Safety Coordinator	Field Quality Control
					Risk (1-20)				Risk (1-20)														
					Green = Low Yellow = Medium Orange = High Red = Extreme				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 suppression)	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 (tail 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 silvers on shovel/handle	2	4		HSEMS Section 6 - PPE, Ergonomics - Manual Material Handling (SWP 22)	2	2		✓	✓	✓		✓	✓	✓				✓			
Snow / Ice Management	Using skid steer to remove snow	Hidden objects/lines/power sources under snow, crush/contact from mobile equipment, cold weather wear & tear on equipment components, blocking emergency routes, run-off/flooding potential	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6), Working in Cold (SWP 06)	2	2		✓	✓						✓						
	Using dozer to remove snow	Hidden objects/lines/power sources under snow, crush/contact from mobile equipment, cold weather wear & tear on equipment components, blocking emergency routes, run-off/flooding potential	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6), Working in Cold (SWP 06)	2	2					✓								✓	✓	
	Using excavator to remove snow	Hidden objects/lines/power sources under snow, crush/contact from mobile equipment, cold weather wear & tear on equipment components, blocking emergency routes, run-off/flooding potential	4	3		Mechanical Mobile Equipment Operations (SWP-44), Manufacturers Operations Manual, Competency Assessment, Vehicle and Equipment Spotting (SWP-75), Hi-Vis PPE (HSEMS - 6), Working in Cold (SWP 06)	2	2						✓									
	Using shovel to remove snow	Overexertion/heavy lifting, repetitive motion, bending/twisting, sharp edges, burs, or silvers on shovel/handle, frost bite, frost nip, hypothermia	2	4		HSEMS Section 6 - PPE, Ergonomics - Manual Material Handling (SWP 22), Working in Cold (SWP 06)	2	2		✓	✓		✓	✓	✓	✓	✓						

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 faultier)	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				✓		✓									
	Threading Pipe / Cutting Pipe	Rotating Components, cuts/scrapes/finger crushers, strains, equipment under tension, falling objects, flying debris	2	4		PPE (HSEMS - 6), Threading Pipe (SJP-21), Using Jacks and Stands (SWP-89)	2	2				✓		✓									
Equipment / Vessel Insulation	Install insulation	Strains/overexertion, pinch points (cutting/clamping tools), cuts, wind	3	3		Contractor Management (HSEMS-18), PPE (HSEMS - 6)	2	2					✓										
Pipe Hauling	Use of crane and/or rigging methods	Crushes (rigging tension), contact with equipment, de-gloving, dropped loads/objects, equipment failure/damage	4	3		Cranes, Hoists and Lifting Devices (SWP-34), Critical Hoisting (SWP-41), Rigging (SWP-54), Material Handling (SWP-22), Load Chart and Manufacturer's Specifications for Crane, Contractor Management (HSEMS - 18)	4	2				✓		✓							✓		
	Moving pipe with zoom boom and/or forked equipment	Swinging loads, cuts, line of fire, being run over by zoom boom, equipment upset, falling materials from trailer	4	4		Material Handling (SWP-22), Rigging (SWP-54), Vehicle & Equipment Spotting (SWP-75), Mechanical Mobile Equipment Operation (SWP-44), Forked Lifting Equipment (SJP-23), Load Chart and Manufacturer's Specifications	4	2					✓		✓				✓		✓		
	Using Trailers	Equipment damage, fall from deck, hand injuries, crush from moving truck/trailer, public safety (lost trailer or material)	4	4		Cargo Securement (SWP-04), Loading Unloading Hauling Equipment (SWP-29), Fleet Safety Journey Management (HSEMS-21)	4	3				✓		✓							✓		
	Transporting pipe on Truck	Crush from moving truck/trailer, public safety (lost trailer or material)	4	4		Cargo Securement (SWP-04), Fleet Safety Journey Management (HSEMS-21), Contractor Management (HSEMS - 18)	4	3				✓		✓							✓	✓	
Equipment Towing	Towing or recovery of equipment with another piece of equipment	Equipment damage, failure of components, crush, line of fire, being run over	4	4		Towing (SJP-19)	3	2							✓	✓	✓				✓		
Line Tie-Ins	Tie-In Welds	Crushing, equipment damage, burns, fire/explosion, engulfment, eye injury, cuts, spring tensions	3	4		Tie-In Welding (SJP-29), Cold Cutting Existing Pipe (SJP-07), Tie In To Existing Pipe System (SJP-25), Monitoring the Escape of Hydrocarbons (SWP-36), Installation of Mud Plugs (SJP-45)	2	2				✓									✓	✓	
Hot Tapping	Hot Tapping	Spills, gas release, fire/explosion, injuries, facility/property damage	4	4		Tie in to Existing Pipe System (SJP-25), Hot Tapping (SJP-08), Monitoring the Escape of Hydrocarbons (SWP-36)	4	3				✓									✓	✓	
Riser Installs	Install riser	Crushing, suspended loads, equipment damage, burns, engulfment, eye injury, cuts, falls	3	3		Material Handling (SWP-22), Cranes, Hoists & Lifting Devices (SWP-34), Rigging (SWP-54), Critical Hoisting (SWP-41), Tie In To Existing Pipe System (SJP-25), Tie-In Welding (SJP-29)	2	2				✓									✓	✓	

Start-Up Assistance	Commissioning systems	Live systems, pressurized systems, electrical shock, fire/explosion	4	2		As per specific task being performed, Hazard Assessment (HSEMS - 2)	4	1			✓		✓							✓		✓
DE-MOB	Loading/unloading trucks	Cuts, crushes, falls, strains, equipment damage	4	2		Loading Unloading Hauling Equipment (SWP-29), Cargo Securement (SWP-04), Material Handling (SWP-22), Forked Lifting Equipment (SJP-23), Ladders (SWP-25)	2	2		✓	✓		✓	✓	✓	✓			✓	✓		