


Job Title:		Operation of Excavator; with Bucket		Operations Approval (Name; Position):	
JHA Developed By (Name; Position):					
JHA Revised By (Name; Position):				HSE Approval (Name; Position):	
JHA Revision Date:				Dean Neuburger, Director, OHS&E	
Job Steps		Potential Hazards	Risk Rating (Before Controls)	Hazard Controls	Risk Rating (After Controls)
1	Pre-task preparation and work area assessment.	<ol style="list-style-type: none"> Misinformation due to unclear instructions or lack of PSP (policies, standards, procedures) and lack of training. Pre-existing work area hazards. Covered hazards buried under snow, water, or mud. 	C4	<ol style="list-style-type: none"> Ensure all applicable JHAs and SWPs are reviewed and signed by all workers, conduct and document pre-task meeting. Only certified, competent and authorized operators can operate equipment. Read and understand operator's manual before operating equipment. Complete a thorough FLRA and eliminate/control all identified hazards, if hazards cannot be controlled, stop work and report conditions to supervision. 	C5
2	Initial inspection, walk around and starting	<ol style="list-style-type: none"> Slips, trips, and falls from uneven ground conditions. Debris in eye from foreign object, dirt, hydraulic fluid. Pinch Points from loader pinch/crush zones. Climbing equipment ladder, cab door, articulating points. Blocked "Rear Emergency Exit Hatch". Fire from fuel or electrical shorts. Battery explosion. Equipment failure or malfunction. 	C2	<ol style="list-style-type: none"> Watch footing, use clear access routes, maintain good housekeeping, and sand as needed. Wear steel toed work boots that are in good condition. Face machine and use 3-point contact when mounting or dismounting machine and use all available grab handles. Ensure feet pegs are free of debris and grab handles are free from fluids. Level ground conditions as required. Wear safety glasses at all times. Use goggles if necessary. Do not expose damaged hydraulic line and inspect hydraulic lines visually, not with your hand. Identify all pinch point hazards and keep hand & body placement away from these areas. Use proper gloves for task. Ensure Rear Emergency Exit Hatch is operational and free of debris. Adjust seat for proper distance to pedals and comfort. Always wear seatbelt and ensure the lower seat bar is in place. Inspect interlock control system for proper function. Always inspect and ensure fire extinguisher is fully charged and ready for use. Complete a thorough & documented daily pre-trip inspection prior to and during work day. Lock out 	C5

		<p>7. Contact with overhead power lines.</p>	<p>machine & report to supervision if equipment is deemed unsafe for use (includes if the backup alarm & beacon are not functioning). Complete maintenance as per manufacturer specifications Ensure Emergency brake in on and other are away from machine before starting. Never Start Machine from outside. Always sit in operator's seat. Review machine Safety Signs and/or Instruction Decals inside Cab before use. Refer to Operators manual when needed. Make sure you have no clothing or tools that could get caught on controls inside operator's cab, clean off mud or snow from foot wear before entering, always have a clean cab.</p> <p>7. Equipment operators must always be aware of the position of their equipment in relation to overhead power lines. Do not depend on safety devices such as hook insulators, insulating blankets etc. Equipment operators should be aware that a long span of power line can rise and fall as the ambient temperature changes, affecting safe limit of approach distances. Wind can induce swing of the power line which also affects these distances.</p> <p><i>If contact with an overhead power line is made, shut down the equipment and remain in the vehicle until the power has been de—energized. Inform your supervisor that contact with an overhead power line has been.</i></p> <p>IF and ONLY IF an emergency forces you out of the equipment (fire, smoke, collapsing structure etc) you must follow the outlined procedure below:</p> <p>DO NOT contact the metal exterior of the equipment when leaving the equipment and jump away from the machine, landing on the ground with both feet beside each other. You must maintain one contact point on the ground in order to keep the electricity from moving through your body.</p> <p><i>To do this you can either shuffle your feet without breaking contact or hop with both feet together, landing with both feet together.</i> You must follow this procedure until you are a minimum of 30 meters or 100 feet away from the course of electrical contact.</p>	
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3	Operating equipment on worksite	<ol style="list-style-type: none"> Slips, trips, and falls from entering & exiting equipment. Vibration related injuries from prolonged sitting. Operator distracted by radio or cell phone. Light Vehicle traffic while driving on road ways. Pedestrians walking on road way or working in area. Roll Over injuries from overloading machine or unstable ground conditions. Hearing Damage from loader noise. Equipment failure or malfunction 	B2	<ol style="list-style-type: none"> Always face machine and use 3-point contact when entering & exiting machine. Ensure all hand rails and feet pegs are free from debris and any fluids. Stretch before and periodically during task as needed. Change task if machine vibrations on the body become a concern. No radio or cell use while operating equipment is permitted. Operator will pull over and park before answering. Ensure operator is aware of surroundings and has a clear unobstructed view of roadway before proceeding. Use spotter(s) as required. Back up alarms and beacon must be in operation. Operator is to adhere to all rules and regulations for mobile equipment operation. Limit speed to 15km/hr unless otherwise noted. Be aware of your surroundings, ground conditions and machine position. Use chains if required. Always wear seatbelt. Ensure the ground conditions are level and are compact enough to support the equipment and its load. Do not exceed the manufacturer's specified rated capacity. Never turn machine while on a slope, maintain safe control of the machine at all times. Never turn the machine with a load at its highest point, always operate machine with load at lowest point. Ear protection rated for the noise produced by the equipment. Complete a thorough & documented daily pre-trip inspection prior to and during work day. Lock out machine & report to supervision if equipment is deemed unsafe for use (includes if the backup alarm & beacon are not functioning). 	C5
4	Digging and moving earth. Making stock piles.	<ol style="list-style-type: none"> Vibration related injuries from prolonged sitting. Operator distracted by radio or cell phone. Light vehicle and pedestrian traffic. 	C2	<ol style="list-style-type: none"> Stretch before and periodically during task as needed. Change task if machine if vibrations on the body becomes a concern. No radio or cell use during driving is permitted. Operator will stop work and shut off the machine before answering. Ensure operator is aware of surroundings and has a clear unobstructed view of roadway before proceeding. 	C5

		<div><div>4. Hearing Damage from loader noise.</div><div>5. Obstructed line of sight from bucket.</div><div>6. Crush injuries from getting caught between objects & machine.</div></div>		<div>Use spotter(s) as required. Be aware of your surroundings, ground conditions and machine position. Use a spotter, have all workers in the work area sign onto FLRA. Keep clear of all vehicles or have them removed from work area.</div> <div><div>4. Wear proper hearing protection as required.</div><div>5. Spotters to be used as assistance to the operator. If you lose contact with your spotter, stop all work until communication is reestablished.</div><div>6. Be aware of your surroundings, workers and other equipment. If the area is too congested for safe equipment use, stop work until area is safe. Keep hand and feel inside operator’s cab at all times and use smooth movement of controls. Refrain from jerky movements while operating machine. Never place yourself or any co-worker between a stationary object and the machine.</div></div>	
5	Parking of Excavator and completing post-use inspection	<div><div>1. Cuts, lacerations, and punctures from exposed metal or sharp edges.</div><div>2. Musculoskeletal Injuries (MSI) from bending over, crouching, and pushing/pulling objects.</div><div>3. Pinch Points between tools and vehicle components.</div><div>4. Slips, trips, falls from uneven ground, ruts, snow, ice, mud, and other debris.</div><div>5. Congested parking area.</div><div>6. Sudden, unintended, equipment movement.</div><div>7. Environmental spill hydraulic oil, engine coolant or diesel fuel.</div><div>8. Fire from ignition sources or sparks.</div></div>	B3	<div><div>1. Always wear gloves during inspection.</div><div>2. Stretch before beginning task and throughout the day as required, limit the amount of bending over you have to do, bend with your legs not your back.</div><div>3. Watch your hand positioning, keep your hands out of the line of fire and use locking mechanisms.</div><div>4. Inspect ground conditions where the post-inspection is taking place. Wear approved work boots and watch your footing. Ensure the inspection area is free from construction material.</div><div>5. Use delineators to clearly mark excavator in designated parking area.</div><div>6. Never park on a ramp or on a corner. Park excavator so it can exit in a forward direction.</div><div>7. Ensure spill berms are placed under the machine when parking and re-fueling.</div><div>8. Ensure all ignition sources are turned off before re-fueling. Do not smoke or re-fuel in an area where sparks are present.</div></div>	C5
Highest Task Risk Rating			B2 (High)	Highest Task Risk Rating	C5 (Low)

Safety Guidelines Required For Task													
(Completed on site)													
Process		PPE			Health		Training		Environment		Security		
<input type="checkbox"/>	Pre Job Hazard Analysis	<input type="checkbox"/>	Arc flash coveralls	<input type="checkbox"/>	Traction Aids	<input type="checkbox"/>	Nitrile glove	<input type="checkbox"/>	Bear awareness	<input type="checkbox"/>	Spill kit	<input type="checkbox"/>	Daylight time only Guards & barriers Journey Mgt. Buddy system Radio contact ERP Other
<input type="checkbox"/>	FLRA	<input type="checkbox"/>	Disposable coveralls	<input type="checkbox"/>	Goggles	<input type="checkbox"/>	Hand Washing	<input type="checkbox"/>	Collision avoidance	<input type="checkbox"/>	Drip trays	<input type="checkbox"/>	
<input type="checkbox"/>	JHA review	<input type="checkbox"/>	Ear plugs	<input type="checkbox"/>	Face shield	<input type="checkbox"/>	Ergonomics	<input type="checkbox"/>	CSTS	<input type="checkbox"/>	Traffic Mgt.	<input type="checkbox"/>	
<input type="checkbox"/>	Signage (Safety/Wet Floor)	<input type="checkbox"/>	Ear muffs	<input type="checkbox"/>	Cut resistant gloves	<input type="checkbox"/>	Other	<input type="checkbox"/>	Confined space	<input type="checkbox"/>	Wildlife Mgt.	<input type="checkbox"/>	
<input type="checkbox"/>	Spotter	<input type="checkbox"/>	Hard hat	<input type="checkbox"/>	Chain-mail gloves	<input type="checkbox"/>		<input type="checkbox"/>	Fall protection	<input type="checkbox"/>	Bear spray	<input type="checkbox"/>	
<input type="checkbox"/>	LOTO	<input type="checkbox"/>	Harness	<input type="checkbox"/>	Knee pads	<input type="checkbox"/>		<input type="checkbox"/>	Fire extinguisher	<input type="checkbox"/>	Air horn	<input type="checkbox"/>	
<input type="checkbox"/>	PTW (Permit to Work)	<input type="checkbox"/>	Lanyard	<input type="checkbox"/>	Steel toed boots (6")	<input type="checkbox"/>		<input type="checkbox"/>	Energy Isolation	<input type="checkbox"/>	Insect Repellant	<input type="checkbox"/>	
<input type="checkbox"/>	Toolbox	<input type="checkbox"/>	Life line	<input type="checkbox"/>	Other	<input type="checkbox"/>		<input type="checkbox"/>	Loader	<input type="checkbox"/>	Ventilation	<input type="checkbox"/>	
<input type="checkbox"/>	Ventilation	<input type="checkbox"/>	Leather gloves; Gauntlets	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Skid steer	<input type="checkbox"/>	Other	<input type="checkbox"/>	
<input type="checkbox"/>	SDS review	<input type="checkbox"/>	Sealed eyewear	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Spill responder	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Fall Protection Plan	<input type="checkbox"/>	Respiratory protection	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	TDG	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Barricades	<input type="checkbox"/>	Arc flash gloves	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	WHIMIS	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Temp logs and verification	<input type="checkbox"/>	Arc flash face shield	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Other	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Other	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

Probability	Severity					
		Catastrophic Death or multiple life-threatening principals	Major Life threatening injury or multiple serious injuries causing hospitalization	Moderate Significant serious injury Non- permanent injury	Minor Medical Help needed, Treatment by medical professional	Insignificant Injuries or ailments not requiring medical treatment
		1	2	3	4	5
	A Almost Certain: <small>Almost certain to occur in most circumstances</small>	1	1	1	2	2
	B Likely: <small>Likely to occur frequently</small>	1	1	2	2	2
	C Possible: <small>Possible and likely to occur at some time</small>	1	2	2	2	3
	D Remotely Possible: <small>May occur in rare and exceptional circumstances</small>	2	2	2	3	3



HSE Safety Management System

Job Hazard Analysis

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