











Date Revised:	March 2022	Overall Task Risk Rating:	Before Controls	<b>A</b>	After Controls	<b>B</b>
Description:	Activities that require the operation of equipment, including vehicles, equipment and associated attachments such as the Paver, Grinder, Roller, Sweeper, Skid Steer, Loader, Salter, Plow, Float, Service Truck, Water Truck, Pick-up Truck etc.					
Location(s):	Shop, Asphalt Plant & Construction Projects					
Associated Documents: Hazardous Agents WTS, Noise WTS, Traffic Control WTS, Driving and Vehicle Operation WTS, Housekeeping WTS						

**RED FLAGS (HOLD WORK UNTIL CORRECTED):**

Note:

- Do not commence work if there is inadequate Traffic Protection
- Do not commence work if the Operator is not trained

**PERSONAL PROTECTIVE EQUIPMENT (CSA COMPLIANT)**

									
Head Protection	Foot Protection	High-Vis Protection	Hearing Protection	Hand Protection	Eye Protection	Respiratory Protection	Skin Protection	Face Protection	Fall Protection
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note:

- When in the Shop one must adhere to the minimum Shop PPE Requirements: Safety Boots
- When onsite one must adhere to the minimum site requirements (i.e. Safety Boots, Hard Hat, & High Visibility Protection). Eye protection when necessary
- The noise level exceeds 85 dB in the production area. Hearing protection should be worn during prolonged exposure
- Additional PPE may be required based on project specific hazards - saw cutting asphalt will require eye, face and respiratory protection, Eye protection is required when working outside of equipment or machinery cabs

**SAFE WORK PRACTICES (SWP)**

General Equipment and Machinery Operation Practices:

- Start the work only when you are certain that you understand the work, the hazards and you have implemented the appropriate controls
- Unsafe conditions and situations must be reported to Foreman/Superintendent immediately (and stop work until the hazard is controlled)
- If you are not familiar with the safe use of any equipment or machinery, ask your foreman / superintendent for assistance before starting
- Do not leave operating equipment or machinery, unattended
- Use three points of contact when mounting and dismounting equipment and machinery
- Refer to the owner's manual for safety and maintenance information specific to the equipment or machinery
- Maintain an awareness of equipment, machinery and personnel around the equipment or machinery that you are operating
- Never operate equipment or machinery while using cellular phones. If a cellular device must be used ensure that equipment or machinery is stationary and shut off in a safe area prior to using cellular device.

Driving and Vehicle Operation:

- Drivers must carry a valid driver's license as required for the equipment or machinery being operated
- Do not drive while under the influence of drugs or alcohol
- Drive company equipment and machinery professionally and in accordance with traffic laws - obey traffic signs and regulations
- Employees must not be transported outside of the cab or inside of the cab if there is no passenger seat - do not ride on forks, a load, rigging, hook, ball, bucket, shovel and/or in a pickup bed
- Operate equipment and machinery within the posted speed limits or at a safe speed based on driving conditions

Workers in Close Proximity:

- Many of the equipment and machinery have large blind spots

- Everyone on site needs to avoid being in blind spots and monitor for / educate others who unknowingly enter blind spots
- All workers must know the hazards and blind spots associated with the equipment and machinery
- Workers on foot are not to approach equipment or machinery until the operator acknowledges the worker and ensures the controls are locked out and/or the engine is turned off
- Workers on foot shall not use cellular device or music device while working particularly in the vicinity of equipment and machinery. Workers must have permission of their Foreperson prior to using cellular devices and must be in safe location should permission be granted prior to using cellular devices.

#### Path of Travel:

- Be aware of where the equipment or machine is headed and do not to walk through the path that the equipment or machine is intending to take
- Be aware of the sequence of operation and stay out of the Path of Travel of moving equipment and machinery
- Do not walk behind reversing trucks

#### Safe Limit of Approach:

- The minimum safe distance at which a worker may move through the potential path of travel for a piece of equipment or machinery
- 10m for all equipment and machinery except skid steers, and 3m for skid steers
- When operators must enter the Safe Limit of Approach zone, (i.e. they are moving their equipment or machine within 10 metres of a worker) they must slow the equipment or machine to walking speed and not make any sudden movements

#### Signalers & Reversing:

- When possible, Foremen / Superintendents are to plan the job as a drive through operation to avoid the need to operate equipment or machinery in reverse
- Operators and Signalers are to review the communication signals to be used
- Operators are to look to the back and to both sides before backing up
- Ensure back up alarms and reversing lights are functioning & honk the horn twice to notify others that you are intending to reverse
- Signalers are required for backing vehicles when the operator's view of the path of travel is obstructed
- Signallers are required when a dump truck with a raised box is within the 3 meters of overhead powerlines/structures
- Signalers are to avoid walking backwards while signaling - walk to the point where it is safe for you to stand, remain stationary and signal the equipment or machine to reverse, then signal the operator to stop if you must reposition yourself
- Back up equipment and machinery slowly and with caution
- Operator is to stop backing immediately if the signaller is not fully visible, visual contact is lost with other workers &/or an emergency stop signal is sounded

#### Staging of Equipment / Delivery & Pickup of Equipment

- Staging of equipment shall be placed within the construction limits, whenever possible and positions as to not be an obstacle for pedestrians or vehicle traffic. Equipment shall be, when necessary, left with delineation devices where equipment could be an obstacle.
- Staging area for equipment shall consider ease of delivery and pickup as to not cause issues for loading and unloading.
- Delivery and pickup of equipment shall whenever possible be schedule for off peak times to avoid or cause traffic congestion.

#### Traffic Control:

- Traffic protection measures shall be implemented in accordance with Ontario Traffic Manual Book 7
- Refer to the Traffic Control WTS for more information

#### Hazardous Energy:

- When authorized persons are setting up or making adjustments to equipment or machinery, ensure that it is locked-out / tagged-out
- Do not attempt to clear jammed equipment or machinery without first shutting off the power
- Secure equipment and machinery loads before moving
- Refer to Hazardous Energy Control WTS for more information

#### Housekeeping:

- Keep equipment and machinery clean and report any leaks or other noticeable defects
- When operating mobile equipment or machinery, avoid standing water, debris, spilled material, or other potential hazards on work surfaces
- Refer to Housekeeping WTS for more information



# EQUIPMENT AND MACHINERY OPERATION

**Inspections:**

- A pre-operational safety inspection is to be completed prior to using the equipment or machinery
- Do not use defective equipment or machinery, inform your foreman / superintendent - they will arrange for the equipment to be serviced
- Before starting equipment or machinery, ensure guards and safety devices are in place, adjusted and functioning properly
- All exposed moving or rotating parts must be adequately guarded

**Training:**

- Employee Orientations (including roles, responsibilities, applicable workplace task standards, WHMIS, etc.)
- Only trained, authorized personnel are allowed to operate vehicles / machinery / equipment
- Only trained, authorized personnel are allowed to perform maintenance / repairs

**PPE:**

- Workers on construction projects must wear, at a minimum, head, foot and high visibility protection. Eye protection when necessary
- Wear High Visibility PPE while working around moving equipment or machinery, and ensure it is clean and all of the reflective tape is visible
- The noise level exceeds 85 dB in the production area. Hearing protection should be worn during prolonged exposure
- Wear the appropriate personal protective equipment for the job at hand (i.e. hearing protection if required)
- If equipment or machinery are equipped with seatbelts, they must be worn by operators

JOB HAZARD AND RISK ANALYSIS		RISK RATING SYSTEM	
		A	B
TASK HAZARDS	RATING BEFORE CONTROLS	TASK CONTROLS	RATING AFTER CONTROLS
<ul style="list-style-type: none"> <li>• Unauthorized Drivers, Lack of, or Improper Training and Education</li> </ul>	<b>B</b>	<ul style="list-style-type: none"> <li>• Equipment and machinery operators must be authorized and trained</li> <li>• Only trained and competent personnel are to perform maintenance</li> </ul>	<b>C</b>
<ul style="list-style-type: none"> <li>• Struck by Equipment / Vehicles &amp; Lack of Signaler</li> </ul>	<b>A</b>	<ul style="list-style-type: none"> <li>• Signalers are required for backing vehicles when the operator's view of the path of travel is obstructed</li> <li>• Signallers are required when equipment or machinery is within the safe limits of approach to overhead powerlines</li> </ul>	<b>B</b>
<ul style="list-style-type: none"> <li>• Lack of Inspection</li> </ul>	<b>B</b>	<ul style="list-style-type: none"> <li>• A pre-operational safety inspection is to be completed</li> <li>• Do not use defective equipment or machinery, inform your foreman / superintendent</li> </ul>	<b>C</b>
<ul style="list-style-type: none"> <li>• Equipment or Machinery Failure</li> </ul>	<b>B</b>	<ul style="list-style-type: none"> <li>• Use equipment and machinery for their intended use</li> <li>• Equipment and machinery shall be operated and maintained</li> </ul>	<b>C</b>
<ul style="list-style-type: none"> <li>• Operating Equipment at Night, Poor Visibility</li> </ul>	<b>A</b>	<ul style="list-style-type: none"> <li>• Ensure lighting is adequate for visibility of the workers and for the workers to complete the task at hand</li> <li>• All vehicles, equipment and machinery, must have adequate lighting systems turned on during operation</li> </ul>	<b>B</b>
<ul style="list-style-type: none"> <li>• Poor Housekeeping</li> </ul>	<b>C</b>	<ul style="list-style-type: none"> <li>• Equipment and machinery should be cleared daily of any garbage so as not to obstruct brakes, accelerator pedals, etc.</li> </ul>	<b>C</b>
<ul style="list-style-type: none"> <li>• Lack of Planning</li> </ul>	<b>C</b>	<ul style="list-style-type: none"> <li>• Equipment and machinery must be stored in designated areas, and in a way, that does not limit or restrict access / egress pathways</li> <li>• Do not operate within the safe limits of approach of overhead electrical hazards (wires)</li> </ul>	<b>C</b>



# EQUIPMENT AND MACHINERY OPERATION

<ul style="list-style-type: none"> <li>Lack Of PPE</li> </ul>	C	<ul style="list-style-type: none"> <li>Workers must wear, at a minimum, head, foot, eye and high visibility protection</li> <li>Equipment and machinery shall be operated as per the manufacturer's instructions</li> </ul>	C
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## SAFE JOB PROCEDURES (SJP)

<p><b><u>Pre-Task Commencement:</u></b></p> <ol style="list-style-type: none"> <li>1. Gather and wear the required PPE for the task - on construction sites, all must wear head, foot and high visibility protection</li> <li>2. Ensure the site-specific workplace violence assessment is complete</li> <li>3. Complete the Daily GAZZ Card and review with all workers the shift's tasks with any associated hazards and control strategies</li> <li>4. Ensure all workers understand the GAZZ Card contents, and sign off in acknowledgement</li> <li>5. Ensure controls are in place prior to commencing work so risks are mitigated / eliminated</li> <li>6. Ensure adequate traffic control measures are in place prior to the start of work (refer to Traffic Control WTS for more detail)</li> <li>7. Determine what equipment / machinery / tools and material, are required for the completion of the task</li> <li>8. Inspect all equipment / machinery / tools prior to use and document the inspections on appropriate forms when required</li> <li>9. Ensure preventative maintenance activities have been completed where required, prior to using equipment / machinery / tools</li> <li>10. If equipment / machinery / tools are observed to be damaged, remove it from use and notify the Foreman / Superintendent</li> <li>11. Install fencing and hoarding where needed</li> <li>12. Locate utilities – Call Before You Dig</li> <li>13. Ensure overhead hazards (i.e. powerlines) are identified &amp; signs are posted</li> <li>14. When required, ensure a competent signaller is appointed and that the operator and the signaller has discussed the signals to be used</li> </ol>
<p><b><u>During Task:</u></b></p> <ol style="list-style-type: none"> <li>1. Mount and de-mount the equipment or machine using 3-points of contact</li> <li>2. Begin task when it is safe to do so - ensure all safety devices are on and functioning (i.e. back up alarms, beacons and reversing lights)</li> <li>3. Do not leave operating equipment or machinery unattended</li> <li>4. Stop backing immediately if the signaller is not fully visible, visual contact is lost with other workers &amp;/or an emergency stop signal is received from anyone in the area</li> </ol>
<p><b><u>Task Completion:</u></b></p> <ol style="list-style-type: none"> <li>1. Remove the ignition keys and lock the doors before leaving the equipment or machine</li> <li>2. Ensure all equipment / machinery / tools are maintained and stored appropriately in the designated locations</li> <li>3. Implement any housekeeping or maintenance as required</li> <li>4. Leave equipment in an appropriate location to allow for easier pick-up of equipment.</li> </ol>