

# **Snow Maintenance Operations**

Date Revised:	September 2024	Overall Task Risk Rating:	Before Controls	В	After Controls	С
Description:	Activities that require and/or are related to the operation of vehicles and equipment for snow maintenance.					
Location(s):	Office, Shop, Asphalt Plant, Snow Projects					
Associated Docu	ments: Housekeeping WTS, Hazardous Agents W	VTS Traffic Control WTS 1 or	ading and Unloading	WTS	Fueling and	

Associated Documents: Housekeeping WTS, Hazardous Agents WTS, Traffic Control WTS, Loading and Unloading WTS, Fueling and Refueling WTS, Equipment & Machinery Operation WTS, Equipment Repairs (Blocking) WTS, Manual Snow Removal Operations WTS, Noise WTS

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

Note:

If the driver or operator is under any influence that could affect their driving ability (drugs, alcohol, fatigue). Driver or operator is not fit for duty.



- PPE must be used when outside of vehicles or equipment when on site including winter gloves when required
- When in the Shop one must adhere to the minimum Shop PPE Requirements: Safety Boots
- When in yard at 529 Carlingview Drive and onsite one must adhere to the minimum site requirements (i.e. Safety Boots, Hard Hat& High Visibility Protection) Hearing protection should be worn when noise levels exceed 85 dB. Eye protection when necessary

### SAFE WORK PRACTICES (SWP)

General Driving Practices:

- Avoid reversing. Plan your work so you do not have to back up.
- Drivers must carry a valid driver's license for the class of vehicle they are operating
- Ensure vehicle has a valid MTO annual inspection permit, insurance card, trip inspection report, CVOR permit are in vehicle
- Do not use a cell phone while operating any vehicles / equipment
- Do not drive while under the influence (i.e. drugs, alcohol, fatigue) that could affect your ability. You must be fit for duty.
- Drive in accordance with traffic laws (i.e. within the posted speed limits or at a safe speed based on driving conditions)
- If you are not familiar with the safe use of any machinery or vehicle, ask your foreman / superintendent for assistance prior to starting
- Confirm safe clearance under bridges and overpasses
- Never leave equipment running while unattended remove the ignition keys and lock the doors before leaving the vehicle/equipment
- No one should be on foot at the salt dome while trucks are being loaded.
- Mount / dismount vehicles/equipment in a safe manner using 3-point contact. Do not carry items up or down and do not jump.

Housekeeping:

- Trucks / vehicles should be cleared daily of any garbage so as to not obstruct brakes, accelerator pedals, gear shift or windows.
- All garbage must be removed from vehicles/equipment at the end of your shift.

Guarding:

• All exposed moving or rotating parts must be adequately guarded. If you remove a guard you must replace it before operation.



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- Before starting a machine or vehicle, ensure guards and safety devices are in place and functioning properly
- No one is to make any protective guarding ineffective.

Seatbelts:

- If equipped with seatbelts, they must be worn by operators and passengers. Exception is equipment without ROPS.
- No passengers are allowed unless authorized. Passengers are must be in a seat with the seat belt fastened. Lock out / Tag out:
- When authorized persons are setting up or adjusting machinery or vehicle, they must ensure that the vehicle/equipment is shut down, locked out and secured from any movement.
- Do not attempt to clear jammed machinery without first shutting off power and locking out the vehicle/equipment.
- If equipped, the battery disconnect switch must be in the off position when parking vehicles/equipment.

Reversing:

- Avoid reversing when and where possible plan your work so you can minimize backing up
- Back Blading of snow should be avoided whenever possible plan you work so back blading can be avoided
- When people are present a spotter/signal person should be utilized when the operator's view of the Path of Travel is obstructed (equipment, trucks, snow plows, pickups)

Fueling / Re-Fueling:

- Ensure all equipment and vehicles, are shutdown prior to commencing fueling/refueling activities Stopping and Parking Vehicles:
- Park in a legal, safe area that does not obstruct traffic, preferably on a level surface (when possible) if obstruction is unavoidable, set up traffic control to route traffic away from the parked vehicle/ equipment
- If it is necessary to park on a slope, park with the wheels turned into a bank/ berm or block the wheels
- Activate park and/or emergency brakes (and transmission lock, if the vehicle/ equipment is equipped)

Cold Stress:

- Frostbite and hypothermia are caused by exposure to severe cold or by contact with extremely cold objects (i.e. metallic objects)
- Once damaged, tissues will always be more susceptible to future frostbite
- Controls include wearing several layers of warm clothing with a waterproof and wind-resistant outer layer and use the Buddy System
- Frostbite Signs and Symptoms are sharp, prickling sensation, skin looks waxy and feels numb
- Hypothermia Signs and Symptoms are shivering, blue lips and fingers, lack of coordination, drowsiness
- If you think someone has signs of cold related illnesses, inform the foreman / superintendent, move the person to a warm area, remove wet clothing, warm affected area gradually, seek medical attention in severe cases

Training:

- Employee Orientations (including roles, responsibilities, applicable workplace task standards, WHMIS, etc.)
- Operators must hold valid training certifications for specific pieces of equipment where required by applicable legislation
- Only trained, authorized personnel are allowed to operate company equipment or vehicles

Inspections:

- Operators of trucks which are CVOR registered are required to complete Pre-Trip Inspections and fill out the form prior to operation.
- Equipment operators must complete the Equipment Pre-Use Inspection form prior to operation.
- Do not use any vehicle or machinery that you determine is unsafe for operation, inform your Foreman / Superintendent immediately
- Ensure that all snow has been cleared from entire exterior of vehicle or equipment
- Ensure that windshield washer fluid is full and that communication (radios) system is operating
- Trucks equipped with salter spinners, conveyors etc. must be operated prior to loading.
- Vehicle damage or needing repair must be reported immediately

Winter Clothing:





• Winter work wear should be readily available to operators when they have to exit the cab of trucks or equipment. Work activity and temperature may vary throughout the day. Dressing in layers allows the worker to add or remove layers as needed. Adjustments to layers should be made prior to work rate or exposure changing to prevent sweating and cooling effects

Salter Ladders

• Do not climb on top of salters.

Personal Protective Equipment:

- Workers on construction projects must wear, at a minimum, head, foot and high visibility protection. Eye protection when necessary
- Full face protection is required when completing tasks that may cause debris / objects to dislodge or become airborne (i.e. salt brine loading)
- The noise level exceeds 85 dB in the production area. Hearing protection should be worn during prolonged exposure
- Workers must adhere to all requirements of legislated regulations when handling specific designated substances
- Workers must wear all PPE listed in specific materials MSDS / SDS

JOB HAZARD AND RISK	Analysis	RISK RATING SYSTEM C High risk of injury or equipment / property damage. Medium risk of injury or equipment / property damage. Low risk of injury or equipment / property damage.	
TASK HAZARDS	RATING BEFORE CONTROLS	TASK CONTROLS	RATING AFTER CONTROLS
<ul> <li>Struck by Equipment / Vehicles &amp; Lack of Signaler</li> </ul>	В	<ul> <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> <li>Workers in the vicinity of moving vehicles (including signalers), must wear CSA compliant high visibility garments</li> </ul>	С
Equipment or Machinery     Failure	В	<ul><li>Use equipment and machinery for their intended use</li><li>Equipment and machinery shall be operated and maintained</li></ul>	С
Cold Stress	В	<ul> <li>Wearing several layers of warm clothing with a waterproof and wind-resistant outer layer including gloves to reduce skin chaffing and hat or balaclava</li> <li>Use the Buddy System – watch for signs of cold related illnesses in your co-workers</li> <li>If you think someone has a cold related illness, inform the foreman / superintendent, move the person to a warm area, remove wet clothing, warm affected area gradually, seek medical attention in severe cases</li> </ul>	С
Lack of Inspection	С	<ul> <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>	С
Poor Housekeeping	С	<ul> <li>Equipment and machinery should be cleared daily of any garbage so as not to obstruct brakes, accelerator pedals, etc.</li> </ul>	С
<ul> <li>Lack of Planning</li> </ul>	С	<ul> <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>	С
Lack Of PPE	С	<ul> <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>	С



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Lack of, or Improper Training     and Education	С	<ul> <li>Equipment and machinery operators must be authorized and trained</li> <li>Only trained and competent personnel are to perform maintenance</li> </ul>	С
Lack of Maintenance	С	Vehicles must be maintained as per the preventative maintenance schedule	С
<ul> <li>Vehicle Collisions / Personal Injury</li> </ul>	С	<ul> <li>Do not drive while under the influence of drugs or alcohol</li> <li>Do not drive if fatigued</li> <li>Drive in accordance to current weather conditions</li> <li>Seatbelts must be worn at all times</li> </ul>	С
Distracted Driving	С	<ul><li>Stay focused and comply with all rules of the road</li><li>Do not use hand held devices while operating vehicles</li></ul>	С
Poor Ergonomics	С	<ul> <li>Adjust the seats, steering wheel, mirrors, etc. so that they fit your size and your driving needs</li> </ul>	С

### SAFE JOB PROCEDURES (SJP)

#### Pre-Task Commencement:

- 1. Gather and wear the required PPE for the task on construction sites, all must wear head, foot and high visibility protection. Eye protection when necessary
- 2. Ensure the site-specific workplace violence assessment is complete
- 3. Ensure controls are in place prior to commencing work so risks are mitigated / eliminated
- 4. Ensure adequate traffic control measures are in place prior to the start of work (refer to Traffic Control WTS for more detail)
- 5. Determine what equipment / machinery / tools and material, are required for the completion of the task
- 6. Ensure preventative maintenance activities have been completed where required, prior to using equipment / machinery / tools
- 7. If equipment / machinery / tools are observed to be damaged, remove it from use and notify the Foreman / Superintendent
- 8. Operators of trucks which are CVOR registered are required to complete Pre-Trip Inspections and fill out the form prior to operation.
- 9. Equipment operators must complete the Equipment Pre-Use Inspection form prior to operation.
- 10. Do not use any vehicle or machinery that you determine is unsafe for operation, inform your Foreman / Superintendent immediately
- 11. Ensure that all snow has been cleared from entire exterior of vehicle or equipment
- 12. Ensure that windshield washer fluid is full and that communication (radios) system is operating
- 13. Trucks equipped with salter spinners, conveyors etc. must be operated prior to loading.
- 14. Ensure overhead hazards (i.e. powerlines) are identified & signs are posted
- 15. When required, ensure a competent signaler is appointed and that the operator and the signaler has discussed the signals to be used

#### During Task:

- 1. Mount and de-mount the equipment or machine using 3-points of contact
- 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)
- 3. Salt roadways with the directions of traffic. Never salt against the flow of traffic. When directed ensure that pre-wetting system is used.
- 4. Plow in echelon on multi-lane highways and roadway snow ensuring that snow is placed on the appropriate side of the highway or roadway. Ensure that when plowing over a bridge deck that snow is not pushed over bridge wall.
- 5. Plow parking lots in a manner to minimize the amount of backing up and or back blading required. Plow snow to designated locations. Never block sidewalks, walkways or entrances.
- 6. Do not leave operating equipment or machinery unattended
- 7. Stop backing immediately if the signaller is not fully visible, visual contact is lost with other workers &/or an emergency stop signal is received from anyone in the area

#### Task Completion:

- 1. Ensure all equipment is fueled prior to parking.
- 2. Ensure all equipment / machinery / tools are maintained and stored appropriately in the designated locations
- 3. Implement any housekeeping or maintenance as required

