

## 1.0 INTRODUCTION

This Standard contains information about general regulatory requirements for powered mobile equipment.

## 2.0 SCOPE

This standard applies to all operators (employees or contractors) of powered mobile / heavy equipment.

## 3.0 REFERENCES

NB OHS General Regulation 91-191	New Brunswick Occupational Health and Safety Regulation 91-191 Part XV: Section: 218,219 & 357
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## 4.0 TERMS AND DEFINITIONS

Heavy Equipment (types of)	For example backhoes, bulldozers, front-end loaders, road graders, excavators, scrapers (pans), skid-steer loaders, dump trucks, dock trucks, trucks 2 tons gross vehicle weight GVW or greater, hydraulic excavators (grad-all), creter cranes, concrete pump trucks, vibrating compactors, water carts/trucks, rollers/compactors, tractors, service/re-fueling trucks, vehicle mounted air tuggers.
Competent Person	a person who is qualified, based on knowledge, training and experience, to do the work assigned in a manner that will ensure the health and safety of persons.
Powered Mobile Equipment	A self-propelled machine or a combination of machines, including a prime mover, that is designed to manipulate or move materials or to provide a work platform for workers.

## 5.0 ROLES AND RESPONSIBILITIES

### 5.1 Supervisor

- Ensure your employees understand the hazards and control measures associated with powered mobile/ heavy equipment.
- Provide applicable information and instruction necessary to ensure their health and safety.
- Ensure that the powered mobile equipment has:
  - Safety barriers to protect employees from flying, intruding or falling objects.
  - roll over protection.
- Ensure that powered mobile equipment is:
  - Used only for the purpose for which it is designed and equipped.



- Operated by a competent employee.
- Equipped with adequate brakes, a manually operated horn, rear-view mirror (or other means to ensure safe backing up), automatic audible back-up alarm, guarded gears and moving parts, and three-point contact to access the operator's cab.
- Equipped with adequate headlights and taillights when used in dimly lit areas or after dark.
- Equipped with controls that cannot be operated from the outside of the cab (unless designed in that way).
- Equipped with approved grounding connection point if required.,

## **5.2 Employee (Operator)**

- Work only within competencies held and advise front line supervision when additional training is required to safely execute work.
- Follow safe operating procedures, including air and hydraulic operation, and refuelling.
- Ensure flammable substances are not stored in the cab or carry loose articles.
- Ensure any safety device is not altered in any way that makes it ineffective.
- Complete a pre-use inspection and check the effectiveness of all safety devices before operating.
- Operate the equipment as intended and as per the manufacturers recommendations.

## **6.0 STANDARD**

Operating and working near powered mobile equipment can potentially be very dangerous. As a result, it must only be operated by competent employees. Operators must understand the safety requirements when operating powered mobile equipment, for both their own safety and that of others working around the equipment.

When operating powered mobile equipment, the best measure an operator can take to avoid injury or death in the event of a rollover or collision is to wear the seatbelt. In the event of a rollover, the rollover protective structures (ROPS) will act as a protective box around you and the seatbelt keeps you inside the box.

Hazards associated with the use of powered mobile equipment include:

- Roll-overs,
  - Hitting a pedestrian,
  - Collisions with other mobile equipment,
  - Falling loads,
  - Fire hazard and chemical exposure during battery charging (when battery operated),
  - Contact with overhead live electrical conductors, and
  - Exposure to carbon monoxide and carbon dioxide (when using fuel-operated equipment in poorly ventilated areas).
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## 6.1 Qualifications

To operate/drive motorized heavy equipment (hereafter referred to as equipment), employees must, at a minimum provide evidence of training, qualifications and/or certifications and/or attend additional training or successfully pass a skills test/performance evaluation before being assigned duties as a heavy equipment operator.

## 6.2 General Requirements

Operator must familiarize themselves and follow the manufacturer's instructions with each machine they operate.

An employer shall ensure that powered mobile equipment manufactured on or after January 1, 1974 is equipped with a rollover protective structure that meets the minimum safety requirements of CSA standard B352-M1980, "Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines".

In the event of a rollover, the rollover protective structure (ROPS) will act as a protective box around the operator and the seatbelt will keep the operator inside the box.

Falling objects protective structures (FOPS) are metal mesh sheets wrapped around the powered mobile equipment where the operator sits. It protects them from branches, rocks and other falling objects

	<b>FOPS</b>	<b>ROPS</b>
Industrial Lift Truck (No chance of upset)	Yes	No
Industrial Lift Truck (Danger of upset)	Yes	Yes one cab covering may serve both purposes
Powered Mobile Equipment (Danger from falling objects)	Yes	Yes one cab covering may serve both purposes
Powered Mobile Equipment (No danger from falling objects)	No	Yes

To prevent personnel from being struck by, crushed, or caught between heavy equipment operating in the area, a ground person must be in control of the area (secured and barricaded if possible). Employees on foot must not approach equipment until the operator is signaled and acknowledges the location of the approaching employee(s).

If traffic control is required, flaggers and ground employees working near equipment, must have appropriate PPE including High Visibility clothing.

Employees must follow manufacturer's specifications regarding passengers.

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No modifications or additions that affect the capacity or safe operation of equipment will be made without the manufacturer's written approval. If the manufacturer will not approve modifications or changes, written approval from a registered professional engineer must be obtained. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals must be changed accordingly.

When operating heavy equipment, you need to be mindful of the area you are working in and any obstacles you may encounter. Overhead power lines should be deenergized, or if that's not possible, establish barriers to avoid making contact with them. If digging, make sure that all underground utilities, such as sewer, water, gas and electrical, have been identified and clearly marked to avoid damaging them and creating delays and more work.

Whenever possible, workers should be kept out of areas where heavy equipment is in operating. Operators should be aware of their swing radius, especially when working in tighter spaces, to avoid hitting other workers, bystanders, or other vehicles or equipment in the vicinity.

Take all precautions when working near open water and ensure the Job Hazard Assessment has given water proper consideration as a hazard.

Prior to beginning work, operations involving aerial powered mobile heavy equipment, hazards and controls must be identified on the tailboard.

### **6.3 Inspections**

Equipment received for use (through purchase, contractual obligations, or rentals) must receive an initial inspection before placing into operation to verify that there are no mechanical defects or safety deficiencies; results of this inspection must be documented, and records provided to NB Power prior to the commencement of work activities with the equipment.

If the equipment warrants service or repair, it will be rejected (before unloading/use) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at their own expense. A copy of the inspection report, noting all deficiencies will be transmitted to the lessor/owner.

When equipment becomes damaged or in need of repair, a documented inspection must be completed before the equipment is returned for use. This inspection will include reviewing prior inspection forms to ensure corrective actions have been addressed.

Before use on each shift, the operator will complete a pre-use inspection of the equipment to verify that the unit is in a safe operable condition.

If a machine is noticed to be deficient during operation, the operator must cease operation and contact the immediate supervisor. Do not operate until proper repairs have been made.

## **7.0 TRAINING**

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# Health & Safety Standards



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Operators *may* be required to attend additional training or successfully pass a skills test or performance evaluation before being assigned duties as a heavy equipment operator. The results of the skills test/performance evaluation are to be documented and filed.

## APPENDIX

Appendix A –Working near Overhead Power Lines WELL Sheet

Appendix B - Powered Mobile Equipment WELL Sheet

A handwritten signature in black ink, appearing to read "Rod Roy".

Director of Total  
Health & Safety

## DOCUMENT APPROVAL/REVISION RECORD

Revision #	Date	Revision Summary	Author	Reviewed By	Approved By
New	2022-01-25	New	A. Munn	Total H&S	R. Condon

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Appendix A – Working near Overhead Power Lines WELL Sheet



Working near Overhead Power lines – WELL Sheet

<b>Date:</b>	<b>Job:</b>			
Observation team member:		Signature:		
Observation team member:		Signature:		
Observation team member:		Signature:		
<b>Location of Work:</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>
1.	Any above ground line, whether high voltage, low voltage, or communication cable is classified as an overhead power line and afforded due caution. This also includes poles, guy wires, underground anchors, and any such structural member that constitutes to the structural integrity of the power line.			
2.	All work within 'limits of approach' of overhead power lines is performed under an approved JSA.			
	<b>NOTE: Driving a vehicle that does not have the capability of any part of it rising up under an overhead power line does not require a JSA. A vehicle that does have the capability of any part of it rising up under an overhead power line (such as a mobile crane or dump truck) "may" require a JSA, depending on driving conditions and/or circumstances</b>			
3.	All lines have been considered energized unless confirmed in writing that they are not energized and that the lines are grounded at the point of operation.			
4.	Before work has begun that a tailboard has been completed identifying and communicating to each employee the task steps to be completed, the hazards and risks associated with the task, and the safe work practices that are to be applied to complete the task safely. If there is any risk of contact, the electrical supply must be turned off and isolated.			
	<b>NOTE: Consult with Total Health &amp; Safety (Safety Specialist) and/or other SME(s) as necessary to verify these criteria.</b>			
<b>Comments:</b>				



## Appendix B – Powered Mobile Equipment WELL Sheet

Date:		Job:				
Observation team member:				Signature:		
Observation team member:				Signature:		
Observation team member:				Signature:		
Location of Work:				Yes	No	N/A
1.	Inspect Mobile Equipment and all attachments daily prior to commencing work. Document inspection, and review maintenance logs prior to operation.					
2.	Do not operate the equipment if any defects are found. Report the defects to the Equipment Department and the HSE Department – review maintenance logs prior to operation.					
3.	Limit the speed at which the equipment is operated, especially when loaded					
4.	Before lifting a load assess the weight of the load to make sure it complies with the equipment's max. capacity					
5.	Ensure that loads are balanced to prevent them shifting during operation.					
6.	Never drive with a load raised higher than is required for adequate ground clearance.					
7.	A qualified spotter shall be in attendance when the loader is working with restricted visibility.					
8.	Do not use the Mobile Machinery for lifting workers to elevated platforms or work areas.					
9.	Seatbelts shall be worn always while operating.					
10.	Ensure all loads are secured with tiedowns					
11.	When parking the equipment ensure that the parking brake is applied and that the load bucket is on the ground.					
12.	Always obey the project / facility traffic controls and speed limits.					
13.	Powered mobile equipment is only to be operated by competent employees					
	<b>NOTE:</b> Consult with Total Health & Safety (Safety Specialist) and/or other SME(s) as necessary to verify these criteria.					
<b>Comments:</b>						