

## 1.0 INTRODUCTION

The standard establishes NB Power's Health & Safety requirements for working with or near shop equipment, machines and tooling to ensure the protection of workers.

## 2.0 SCOPE

This Standard applies to all situations in which employees and contractors may encounter pinch points, cutting edges or other moving parts on a machine or tool that may be hazardous.

## 3.0 REFERENCES

NB OHS General Regulation 91-191	New Brunswick Occupational Health and Safety Regulation 91-191 Part XV: Section: 83,85,87 & 242
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## 4.0 TERMS AND DEFINITIONS

Shop Equipment	Lathes, drill presses, power brakes, table saws, radial arm saws, benders, shears, etc.
Moving Equipment	Drive or idler belts, rollers, gears, driveshafts, keyways, pulleys, sprockets, chains, ropes, spindles, drums, counterweights, flywheels, couplings, etc.
WELL Sheets	What Excellence Looks Like – information on a particular topic.

## 5.0 ROLES AND RESPONSIBILITIES

### 5.1 Supervisor

- Plan and direct the work to maintain the requirements of this standard.
- Ensure employees are competent for the task being performed.
- Assess guarding condition in the workplace (WELL sheet is available)

### 5.2 Employee

- Comply with the requirements outlined within this standard.
- Work only within competencies held and advise front line supervision when additional training is required to safely execute work.
- Adhere to procedures to protect your safety, the safety of your fellow employees, and the safety of the public.
- Assess guarding condition in the workplace (WELL sheet is available). Ensure all guards are reinstalled after completion of assigned work.

### 5.3 Joint Health and Safety Committee (JHSC)

- Perform monthly workplace inspections on safety aspects including guarding
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## **6.0 STANDARD**

### **6.1 Shop Equipment**

Machines with moving parts and machines that could potentially send objects flying in the event of failure are dangerous and employers and employees must take proper precautions. Physical contact with or objects thrown from machines is high energy and can lead to serious injury or fatality. Although safeguarding is not the only tool available to prevent incidents, it's an important one, and required by law.

Layout of facilities and equipment placement should be designed to instill safety. Follow the below bullets for the safe use of equipment:

- Long hair, including facial hair, shall be suitably confined to avoid entanglement with any moving parts.
- Jewelry with metal parts shall not be worn where there is any risk of contact with live electrical parts or circuits.
- Jewelry shall not be worn on the body where it might cause a hazard around rotating parts, or any other potential entanglement, i.e. bracelet, necklace, etc.
- Loose clothing shall not be worn while working around moving parts.
- Before employees can operate shop equipment, they must be trained on the safe operation of that specific equipment.
- Appropriate personal protective equipment (PPE) must be always worn.
- All equipment will have all legible manufacture warning labels/signs posted showing requirements for its safe operation.
- Operational safety interlocks must be used on all equipment as required (such as power brakes/presses, shears, and drill presses, etc.).
- Safety interlocks are not to be used as lock out/tag out. Safety interlocks are not to be removed. If interlock becomes faulty equipment must be taken out of service.
- When performing maintenance, cleaning, etc., the equipment shall be put into a zero energy state.

### **6.2 Machine Guarding**

Any machine part, function, or process that might cause injury to the worker must be safeguarded. Guards must be installed on all rotating machinery per manufacturers instruction and must not be removed or disabled (equipment that may produce flying objects, create a pinch/nip point, or presents a hazard to the employee from moving parts, such as lathes, drill presses, and table saws, etc.). If equipment is identified that requires safeguarding, and safeguarding has not been provided by the equipment manufacturer, the area should be made safe and consultation with the equipment manufacturer and / or engineering support must be initiated to remedy the hazardous condition.

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Hazards associated with machinery include contact with:

- Moving parts
- Flying objects (fragment from an abrasive wheel)
- Electricity
- Heat or cold
- Gas or liquid under pressure
- Materials, chemicals or other substances

Common injuries from working with and around machinery include crushing, amputations, burns, lacerations and electric shock.

The main machine movements that can cause injuries include:

- **Rotation** – rotating parts of the machine creates nip points that can grip clothing, jewelry, appendages (hands, arms, feet, and legs), hair and other dangling objects. The item that is gripped can be dragged into the machine, causing further damage or severe injury. A lathe is an example of this type of machine.
- **Sliding** - motions that involve the movement of one part along a stationary part, or the movement of one part over another part that is moving in the opposite direction of the first part. These types of motions can entrap, cut, crush, or strike an individual. An example of this type of machine is a four-slide metal working machine.
- **Crushing** - occurs as a result of at least two objects moving in opposing directions toward one another, or one object moving toward a stationary object. An example of this type of machine is a mechanical break press.
- **Punching** - motions are used to create indentations or holes in materials. It typically involves the perpendicular movement of a small item onto the surface of a material. Both crush and shear injuries can also occur at these points of contact. An example of this type of machine is a punch press.

*Note: Tampering with safeguards is strictly prohibited. All alterations must be engineered.*

## 7.0 TRAINING

Where Machine / Tool specific training is required, supervisors shall ensure that employees are trained and competent on the equipment they are using.

## 8.0 APPENDIX

Appendix A - Machine / Tool Guarding – WELL Sheet



Director of Total  
Health & Safety

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# Health & Safety Standards



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Shop Equipment, Machine & Tool Guarding

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## DOCUMENT APPROVAL/REVISION RECORD

Revision #	Date	Revision Summary	Author	Reviewed By	Approved By
New	2022-01-24	New	A. Munn	H. Georgiadis	R. Condon
01	2025-05-31	6.2 Machine Guarding Clarification WELL Sheet – expanded review criteria pertaining to hair / facial hair.	A. Munn	TH&S Team	R. Roy

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## Appendix A – Machine / Tool Guarding WELL Sheet



Form/Formulaire #: 1034  
Revision: 2021/11

### Machine / Tool Guarding – WELL Sheet



Date:	Job:	:		
Observation team member:		Signature:		
Observation team member:		Signature:		
Observation team member:		Signature:		
Location of Work:		Yes	No	N/A
1.	All shafting, wheels, gears, flywheels, and other moving parts of rotating machinery within reach shall be guarded, and employees must not wear loose fitting clothing and/or jewelry if they could encounter moving parts.			
2.	Fixed machine tools shall only be operated by competent employees and only when the tools are in good working condition with all guards in place (tampering with safeguards is prohibited). These tools shall be used only for the purpose for which they are designed and only after the operator has determined that all other employees are in the clear.			
3.	When setting up work on fixed machine tools, the work shall be bolted or clamped securely.			
4.	Fixed machine tools shall be turned off when work is finished and shall not be left unattended when they are in operation.			
5.	Grinders shall be equipped with shields, material rests, and guards.			
6.	Rests used on grinding machines shall not be set more than 3mm (1/8 inch) from the face of the grinding wheel			
7.	Appropriate eye and face protection shall be always worn. Long hair, including facial hair, shall be suitably confined to avoid entanglement with any moving parts.			
8.	Grinder disks shall match the specifications of the grinder (i.e., speed) and shall be properly selected for the task.			
NOTE: Consult with Total Health & Safety (Safety Specialist) and/or other SME(s) as necessary to verify these criteria.				
Comments:				

