

# Corporate Policies

SECTION: HEALTH AND SAFETY – Organizational Rules	POLICY 12.4.9
SUBJECT: <b>Machine Guarding</b>	
EFFECTIVE: December 12, 2007	REPLACES: N/A
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APPROVED BY: CW545-2007	PROCEDURAL UPDATES:

## POLICY STATEMENT:

When using machinery or equipment all guarding and safety devices must be intact and securely bolted, fixed in place or interlocked. Machine guarding and safety devices (presence sensing devices, emergency stop actuators and two hand controls) are designed to protect workers from contact with moving parts in the hazardous area where injury can result.

The attached procedure is generic and designed to cover the basics of machine guarding and safety devices. Any department/division that performs work requiring the use of machine guards or safety devices must train their workers respective of the specific equipment or machines in their workplace. All workers who are working with machine guards or safety devices must be aware of this policy and comply with it.

## PURPOSE:

To ensure workers using machinery or equipment are prevented from gaining access to the moving parts as required under the *Occupational Health and Safety Act, Industrial Establishment Regulations and Regulations for Construction Projects*. Specific legislative references from the *Industrial Establishment Regulations* include (list is not exhaustive):

- Beneath conveyor, *Section 34*
- Centrifugal extractor, separator or dryer, *Section 31*
- Explosive actuated fastening tool, *Section 36*
- Grinding wheel, *Section 29*
- In-running nip hazard, *Section 25*
- Machine, prime mover or transmission equipment, *Section 24*
- Material being processed, *Section 26*
- Moving of material, *Section 46*
- Tumbling mill or dryer, *Section 32*

## SCOPE:

All workers who perform work on a machine or prime mover or transmission that has an exposed moving part, or where clearances between a moving part of any machine do not ensure the safety of a worker, or where there are in-running nip hazards, or access to pinch points that may present a danger to an worker.

## PROCEDURES:

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## 1.0 Definitions

- Emergency stop:** A function that is intended to avert harm or to reduce existing hazards to persons, machinery, or work in progress.
- Guard:** A part of machinery specifically used to provide protection by means of a physical barrier. Depending on its construction, a guard may be called a casing, screen, door, enclosing guard, etc.
- Adjustable barrier guard:** A fixed guard that is adjustable as a whole or that incorporates adjustable parts. The adjustment to the guard remains fixed during operation.
- Barrier (fixed distance) guard:** A fixed guard that does not completely enclose the hazard but that reduces access by virtue of its physical dimensions and its distance from the hazard.
- Fixed guard:** A guard kept in place (i.e., closed or attached to a fixed surface) either permanently (e.g., by welding) or by means of fasteners (screws, nuts, etc.), making removal or opening impossible without using tools.
- Interlocked barrier guard:** A fixed or movable guard attached and interlocked in such a manner that the machine tool will not cycle or will not continue to cycle unless the guard itself or its hinged or moveable section enclosed the hazardous area.
- Machinery:** An assembly of linked parts or components, at least one of which moves, with the appropriate machine actuators, control and energy circuits, etc. joined together for a specific application, in particular for the processing, treatment, moving or packaging of a material.
- Presence-sensing device (PSD):** A safeguarding device designed and constructed to create a sensing field that, when penetrated, produces a

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signal intended to stop hazardous machine motion within the area protected by the field.

**Safe distance:**

A method of workpiece positioning and operator location that eliminates the need for the operator to be in or near the hazardous area during the hazardous portion of the machine cycle.

**Two-hand control device:**

A device that requires the concurrent use of both of the operator's hands to both initiate and continue the machine cycling during the hazardous portion of the machine cycle.

## 2.0 General

### 2.1 Use of Guarding

- a. Guarding on equipment or machinery is provided to protect workers from hazardous motion that can cause injury. Guarding provides a protective barrier that essentially encloses the hazard and prevents access by any person or part of their body. There are several types of guarding which include: adjustable barrier guard, barrier (fixed distance) guard; fixed guard and interlocked guard.
- b. Guarding provided on machinery or equipment must remain affixed on the equipment while it is being used. Removal of guarding during operation of the machinery or equipment is strictly prohibited, as it may result in injury or death of a worker.
- c. Removal of guarding for the purposes of maintenance only is acceptable. However, this function is only to be performed by qualified personnel. It is important to remember that whenever a protective barrier or safety device is removed or disabled for purposes of maintenance activities, administrative controls such as lockout and tagout are required. See Policy No. 12.4.3.

### 2.2 Pre Start Safety Check

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- a. It is imperative that before any work commences on a machine or piece of equipment that the worker first verifies that all the guarding is intact and working properly. This includes verifying that all the guards are in place and properly affixed. For example, if the machine has fixed guarding it is required to be permanently applied and require a tool for removal. Verify that the fixed guarding is mounted in this way.
- b. Before any work commences, it is imperative that the emergency stop button on the machine or equipment is tested to verify it is functioning properly. The emergency stop button is a red mushroom-headed button that, when activated, will immediately start the emergency stop sequence. The emergency stop is tested by initiating the machine cycle following normal procedures and then pressing the emergency stop. All motion within the machine must stop. If this does not happen, immediately stop the machine and discontinue use until it is repaired.

## 3.0 Training

Supervisors are responsible for ensuring that all workers assigned to using equipment or Machinery are trained in the application of the procedure and how to conduct a Pre-Start Safety Check prior to using the equipment or machinery.

A written record of workers trained must be kept on file with Health, Safety & Wellness services, Human Resources Division.

Supervisors must monitor compliance with the procedure and provide for re-training, as required.

## 4.0 Responsibilities

### 4.1 Supervisor Responsibilities

- a. Ensure that protective devices and machine guarding are provided and used as prescribed to protect workers from possible injury.
- b. Ensure that protective devices and machine guarding are maintained in good working condition.
- c. Provide workers with instruction on how to verify the proper functioning of machine guards and protective devices.
- d. Provide a means to document the Pre-Start Safety Check. Retain the documents for inspection for a period of one year from the date it was created.

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- e. Ensure that workers receive specific instruction and training on machinery they may be required to use as part of their job prior to commencing work.

## 4.2 Worker Responsibilities

- a. Verify that machine guards are affixed in place as required prior to use of the equipment.
- b. Verify that any protective devices on the machine are functioning properly prior to use of the equipment.
- c. Follow the safe work instructions of your supervisor.
- d. Never remove or make ineffective any guard or protective device. Should the need to do so arise, you are required to speak to your supervisor before providing an adequate temporary protective device.
- e. Wear the appropriate personal protective equipment. Refer to the direction of your supervisor.
- f. Do not wear loose clothing, long dangling earrings, jewellery from the elbow down, long hair, neckties or anything else that may become entangled in the equipment.

## 4.3 Health, Safety & Wellness Services Responsibilities

- a. Assist the operating departments with the implementation of the policy and the development of safe work procedures.
- b. Deliver information and training services, as required.
- c. Maintain training records.

### **ACCOUNTABILITY:**

All workers of the Corporation are accountable to adhere to this policy as outlined.

### **REFERENCES:**

Canadian Standards Association Z432-04 Safeguarding of machinery  
Occupational Health and Safety Act (1990)  
Regulations for Industrial Establishments, 851/90

### **ADMINISTRATION:**

Health, Safety & Wellness Services is the administrator of this policy, and is responsible for keeping this policy up to date.

### **CONTACT:**

Health, Safety & Wellness Services, Human Resources Division 905 874 2166