

# Safe Operation of Machinery Blitz (External)

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**Safe At Work Ontario**  
Enforcement > Compliance > Partnership >

Ministry of Labour

## Disclaimer

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The purpose of today's presentation is to assist the workplace parties in understanding their obligations under the Occupational Health and Safety Act (OHSA) and its regulations. It is not intended to replace the OHSA or the regulations, and reference should always be made to the official versions of the legislation.

It is the responsibility of the workplace parties to ensure compliance with the legislation and the presentation does not constitute legal advice. If you require assistance with respect to the interpretation of the legislation and its potential application in specific circumstances, please contact your legal counsel.

Ministry of Labour inspectors will apply and enforce the OHSA and its regulations based on the facts as they may find them in the workplace. This presentation does not affect their enforcement discretion in any way.

## Focus

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The primary focus of this inspection blitz is machine guarding and lockout

In support of the many other ministry health and safety priorities, Inspectors will also check for:

- Internal responsibility system (IRS)
- electrical hazards
- activities associated with the risk of developing musculoskeletal disorders (MSD)

## Workplace Selection

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Inspectors will focus on the following sectors during this Blitz:

- automotive
- food and beverage
- wood and metal fabrication
- textiles and printing
- chemical, rubber and plastics
- ceramics
- logging (sawmills)
- pulp and paper

## Rationale for Guarding and Lockout Focus

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In 2013, the Workplace Safety and Insurance Board received claims from the following workers for lost-time injuries – injuries that resulted in workers having to take time off work:

- 1,641 workers who were caught in or compressed by equipment
- 246 workers who were rubbed or abraded by friction, pressure or jarred by vibration

## Rationale (continued)

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The MOL enforcement statistics for the 2013 calendar year are as follows:

- Approximately 17% of all orders (written under Regulation 851) related to guarding and lockout contraventions
- Approximately 1.5% of all orders (written under Regulation 851) related to lockout contraventions

## Internal Responsibility System (IRS)

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Inspectors will focus on the following key priorities to ensure that employers are complying with OHSA requirements (as applicable to the workplace), including but not limited to:

- Health and safety policy and program to implement the policy
- Workplace violence and harassment policies and programs
- Joint Health and Safety Committee or Health and Safety Representative
- Posting requirements (e.g. OHSA, Health & Safety at Work poster, etc.)
- Mandatory health and safety awareness training (O. Reg. 297/13)

## Roles and Responsibilities

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- Employers, supervisors and workers have responsibilities under the *Occupational Health and Safety Act* (OHSA) and the Regulation for Industrial Establishments (R.R.O. 1990, Reg. 851). Some of the responsibilities may include:

### **Employers must:**

- Provide appropriate information, instruction and supervision to protect workers (OHSA, clause 25(2)(a)) (i.e. training in lock-out and guarding procedures)
- Ensure that the equipment provided is maintained in good condition (OHSA, clause 25 (1) (b)) (i.e. by replacing/ repairing damaged components of a machine)

## Roles and Responsibilities (continued)

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### **Employers must:**

Ensure appropriate guarding:

- When a hazard exists from a exposed moving part that may endanger a worker it is required to be guarded by a guard or other device that prevents access to the moving part (Reg. 851, section 24)
- Any machine that has an in-running nip hazard that may endanger a worker must be equipped with a guard or other device to prevent access to the pinch point (Reg. 851, section 25)

## Roles and Responsibilities (continued)

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An operating controls that act as a guard for a machine not otherwise guarded (Reg. 851 section 28) shall:

- be in a location where the safety of the operator is not endangered by moving machinery
- be arranged so that it cannot be operated accidentally
- not be made ineffective by a tie-down device or other means

## Roles and Responsibilities (continued)

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### Employers must:

Ensure appropriate lockout and blocking procedures:

- A machine should only be cleaned, oiled, adjusted, repaired or have maintenance on it when motion that could endanger the worker is stopped and any stopped part that could move has been blocked (Reg. 851, section 75)
- Where the starting of a machine may endanger a worker, lock out control switches or other control mechanisms, and take other effective precautions to prevent any starting (Reg. 851, section 76)

## Roles and Responsibilities (continued)

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### Supervisors must:

- Take every reasonable precaution in the circumstances for the protection of workers [27(2)(c) of OHSA]
- Ensure workers comply with the OHSA and its regulations [27(1)(a) of OHSA]
- Ensure workers use any equipment, protective devices or clothing required by the employer [27(1)(b) of OHSA]
- Advise workers of any potential or actual health and safety dangers [27(2)(a) of OHSA]

## Roles and Responsibilities (continued)

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### Workers must:

- Participate in training including lockout and guarding [28(1)(a) of OHSA]
- Follow lock-out and guarding procedures [28(1)(a) of OHSA]
- Report machine hazards and other workplace hazards to their supervisor [28(1)(d) of OHSA]
- Use or operate machinery in a safe manner [28(2)(b) of OHSA]

## Why is Lockout necessary?

If a lockout is not performed, uncontrolled energies could cause:

- cuts
- bruises
- crushing
- amputations
- death

As a result of entanglement with:

- belts
- chains
- conveyors
- rollers
- shafts
- impellers

## Key Focus – Blocking

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Inspectors will focus on the following key priorities to ensure:

- Employers are ensuring that a part of a machine shall be cleaned, oiled, adjusted, repaired or have maintenance work performed on it only when any motion that may endanger a worker has stopped.
- Employers are ensuring that a part of a machine that may subsequently move and endanger a worker has been blocked to prevent its movement

## Blocking (continued)

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- Applicable requirements: section 76 of the Industrial Regulation 851/90.
- Anyone who operates, cleans services, adjusts or repairs machinery or equipment must be aware of the hazards associated with that machinery.
- Every year workers die or are critically injured because the equipment they are working on does not have adequate blocking installed.

## Blocking (continued)

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- It is critical to block all forms of hazardous energy, including gravity, hydraulic pressure, or stored electrical or mechanical energy.
- The lack of blocking allows equipment to move or drop, striking workers, leading to fatal and critical accidents.

Additional information can be found at: MOL Alert, Equipment Blocking  
<http://www.labour.gov.on.ca/english/hs/pubs/alerts/a23.php>

## Additional Focus – Musculoskeletal Disorder (MSD) Prevention

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The ergonomics portion of the Manufacturing Blitz will focus on potential MSD hazards associated with activities that may be in an industrial establishment. Employers should address the following MSD hazards:

### **1) Loading and Retrieving Items into/from a Machine**

- MSD hazards that can be associated with loading or retrieving items into/from a machine can include repetition, force, awkward or sustained postures, prolonged standing, or prolonged sitting.

### **2) Installing/Removing Guards**

- Awkward postures and/or high forces can be associated with installing or removing guards.

More information on MSD and Ergonomics is available on the MOL website at: <http://www.labour.gov.on.ca/english/hs/topics/pains.php>

## Additional Focus – Power Line Contact

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Inspectors will check that employers have taken every precaution reasonable in the circumstance for the protection of workers at workplaces where there is potential for overhead power line contact. For example, repair or maintenance tasks on the roof of the building being conducted in close proximity to power lines.

## Additional Focus – Pre-Start Health and Safety Reviews (PSR)

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Inspectors will check that employers have conducted a PSR when required by section 7 of the Industrial Regulations 851/90 and when a workplace is a factory as defined by the OHSA.

The written report shall contain:

- details for the measures to be taken for compliance
- if testing is required before it can be used
- measures to be taken to protect the worker before testing is carried out
- details of the structural adequacy of the apparatus or structure.

## PSR for Guarding

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What is a Pre-Start Review (required by section 7 of Regulation 851)?

A Pre-Start Health and Safety Review includes, but is not limited to:

- a written report on the installation of a protective element or process
- or modifications to an existing protective element or process
- details the measures necessary to bring the installation or modification into compliance with the applicable provisions of Regulation 851 (Industrial Establishments) under the OHSA.

## PSR for Guarding (continued)

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When is it required?

A PSR would be required in a factory, when an employer

- Installs new guarding
- Modifies existing guarding

The following types of guards may require a PSR:

- A safeguarding device that signals the apparatus to stop, or
- A barrier guard that uses an interlocking mechanical or electrical safeguarding device

## PSR

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### Intent

- To ensure that a timely professional review identifies specific hazards.
- To ensure that hazards are removed or controlled before the apparatus or process is started up.
- To ensure worker protection as required under the applicable provisions of the Regulation 851 (Industrial Establishments).

For more information see MOL Guideline at:

[http://www.labour.gov.on.ca/english/hs/pdf/gl\\_psr.pdf](http://www.labour.gov.on.ca/english/hs/pdf/gl_psr.pdf)

## Documents for PSR Exemption

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In certain circumstances, a pre-start health and safety review is not required for:

- A safeguarding device that signals the apparatus to stop, or
- A barrier guard that uses an interlocking mechanical or electrical safeguarding device

## Documents for PSR Exemption (continued)

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In order to demonstrate that a pre-start health and safety is not required, the employer must have documentation establishing that:

- the apparatus and protective element have been manufactured or modified to meet current applicable standards. As an example the employer may provide procurement/purchasing documentation verifying that the apparatus and protective element have been manufactured or modified to meet current applicable standards.
- and the apparatus and protective element were installed in accordance with the manufacturer's instructions and current applicable standards, if applicable;

## Documents for PSR Exemption (continued)

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If the protective element was not installed when the apparatus was manufactured, the following documentation is also needed to establish that a pre-start health and safety review is not required.

- the protective element is installed in accordance with the manufacturer's instruction and current applicable standards, if any. As an example the employer may provide a notice from the installer or certification from an accredited organization (where such organization exists) verifying that the apparatus and protective element have been manufactured or modified to meet current applicable standards.

## Questions?

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**Thank You**