Machine Guarding

Safety Meeting Packet

Protect Your Workforce

Injuries caused by machinery occur across multiple industries including manufacturing, construction, and agriculture. Such injuries can range from crush injuries and fractures to amputations, which are among the most severe and disabling types of workplace injuries. It is important that employers and employees operating and caring for machinery understand the importance of machine guarding and the types of machine guards that are available.

Hazards

Different pieces of machinery pose different hazards, so the types of exposure vary between workplaces and industries. There are some common mechanical components and motions that pose a risk to worker safety.

Mechanical Components

- Point of Operation – area of the machine where work is performed
- Power-Transmission Apparatus – part(s) of the machine that transfer energy
- Other Moving Parts – part(s) that move when the machine is in operation

Mechanical Motions

- Rotating – circular movement
- Punching – striking movement
- Reciprocating – back-and-forth or up-and-down movement
- Traversing – continuous movement in a straight path
- Cutting – action that cuts material and may include a rotating, reciprocating, or transverse movement
- Shearing – power is applied to a sharp edge to trim or shear material
- Bending – power is applied to materials in a bending motion
- In-Running Nip Points / Pinch Points – two parts moving together

OSHA Requirements

The Occupational Safety and Health Administration (OSHA) has established a standard for machine guards, detailing the types of exposures that warrant guards, and some common pieces of machinery that require guards. The standard establishes several guidelines:

- Guarding is required for machinery that exposes workers to hazards.
- Guards should be fixed on the machine or secured elsewhere if they cannot be fixed to the machine.
- The guard itself must not pose additional hazards.
- Point of operation guards must prevent the operator from placing any part of their body in the danger zone.
- Special hand tools used for placing and removing materials must allow for easy handling of the materials without the operator placing their hand in the danger zone.

Guards

Guards are physical barriers that prevent employees from contacting machine parts. There are four types of guards:

- Fixed – barrier allows the feeding of materials, but prevents the operator from encountering dangerous parts
- Adjustable – a barrier that adjusts according to the operation
- Self-Adjusting – a barrier that adjusts according to the size of the material at the point of operation
- Interlocked – a barrier that shuts off the machine's power source when the guard is open

Safeguarding Devices

Safeguarding devices are controls or attachments that prevent employees from encountering machine parts. Below are some common safeguarding devices:

- Pullback – a device that mechanically attaches to the operator's wrist and the machine and pulls the operator's hand away from the point of operation
- Restraint – a device that attaches to the operator's wrist that prevents the operator from encountering the point of operation
- Presence-Sensing – a device that stops the machine when its sensing field is disturbed
- Two-Hand Control – a device that requires the use of both hands and prevents them from entering the point of operation

Secondary Devices

Secondary safeguarding devices provide additional protection from machine parts hazards but do not prevent employees from placing body parts in hazardous areas.

- Detection – a device that detects the presence of an employee's hand in the machine's hazardous area
- Awareness – a device that warns the operator of a hazard
- Methods – protect the employee through the arrangement of the machinery, distancing the employee from the hazard
- Safe Work Procedures – formal, written instructions on how to perform tasks

For additional information, please review OSHA Machinery and Machine Guarding Standard 29 CFR 1910 Subpart O.

Machine Guarding

Safety Meeting Attendance Acknowledgement

Company Name _____

Department / Division _____

Meeting Date & Time _____ _____ ☐ AM ☐ PM

Meeting Location _____

Name & Title of Individual Conducting Meeting _____

Key Meeting Discussion Points / Important Reminders:

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Internal Procedures Reviewed:

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By signing this document, you confirm your attendance at the meeting and acknowledge the issues addressed above!

Employees in Attendance		
(Print):	(Print):	(Print):
(Sign):	(Sign):	(Sign):
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Employees not present: _____

Suggestions/Recommendations to improve workplace safety and health: _____

Actions Taken: _____

Manager/Supervisor: _____ Date: _____

Disclaimer:

The information provided above was assembled using multiple resources. However, these materials do not contain ALL the information available regarding the required safety standards under local, provincial, state, or federal law for your industry.