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TOOLBOX TALK

Machine Guarding

WHY THIS MATTERS

Workers who operate and maintain machinery suffer approximately 18,000 amputations, lacerations, crushing injuries, and abrasions, plus over 800 deaths per year (OSHA). Machine guarding is a Top 10 OSHA citation. 58% of all workplace amputations are machine-related (BLS).

18,000
Machine injuries per year in the U.S. (OSHA)

800+
Machine-related deaths per year (OSHA)

100%
Machine injuries are preventable with guards

5 Rules for Machine Guarding Safety

If it moves, rotates, cuts, or crushes — it must be guarded. No exceptions:

1. **NEVER OPERATE A MACHINE WITHOUT GUARDS IN PLACE**
   If a guard is missing, damaged, or removed — STOP. Do not use the machine. Report it immediately.
2. **NEVER REMOVE OR BYPASS A GUARD**
   Guards exist because someone was injured or killed without them. Bypassing a guard risks your hands and life.
3. **LOCKOUT/TAGOUT BEFORE MAINTENANCE**
   Before cleaning, adjusting, unjamming, or repairing — de-energize and lock out. Verify zero energy.
4. **KEEP HANDS, HAIR, AND CLOTHING AWAY**
   No loose sleeves, gloves near rotating parts, jewelry, or long untied hair. These get caught and pull you in.
5. **INSPECT GUARDS BEFORE EVERY USE**
   Check that guards are secure, undamaged, and properly positioned. Report any defects before starting work.

Machine Guarding Checklist

- [ ] Are all point-of-operation guards in place and secured?
- [ ] Are power transmission guards (belts, gears, shafts) intact?
- [ ] Are emergency stop buttons accessible and functional?
- [ ] Is LOTO applied before any maintenance or adjustment?
- [ ] Are workers trained on the specific machines they operate?

6 Types of Hazardous Machine Motions

Rotating
Shafts, couplings, spindles, gears, flywheels. Can catch hair, clothing, or limbs and pull you in instantly.

Reciprocating
Back-and-forth motion — rams, pistons, slider mechanisms. Can strike or crush on the return stroke.

Cutting
Saws, drills, milling cutters, lathes. Contact with the cutting point causes lacerations or amputations.

Punching / Shearing
Presses, shears, stamping machines. Apply extreme force at the point of operation. Amputations are common.

Bending
Press brakes, bending machines. Material is forced between dies. Fingers and hands get caught in the bend.

In-Running Nip Points
Where two rotating parts meet — gears, rollers, belt-pulley. Pulls hands in with no time to react.

Common Mistakes That Cause Machine Injuries

- ✗ Removing guards to "make the job easier" — the guard is there because the machine can kill you without it
- ✗ Reaching into a running machine to clear a jam — STOP the machine and lock it out first, every time
- ✗ Wearing loose clothing, gloves, or jewelry near rotating parts — these get caught and pull you in
- ✗ Assuming the machine is off because it stopped — stored energy, gravity, or restart can still injure you

Safety Tips to Remember

- ✓ If a guard is missing, the machine is out of service — no guard = no work. Report and tag it out
- ✓ The point of operation is the most dangerous zone — never put your hands where the machine works
- ✓ Emergency stop buttons save lives — know where every e-stop is before you press the start button
- ✓ New employees need machine-specific training — general safety training is not enough for machines

Discussion Questions for Your Team

1. Are all machine guards in place and in good condition on our equipment today?
2. Can everyone locate the emergency stop button on the machines they use?
3. Has anyone noticed a damaged or missing guard that hasn't been reported?
4. When was the last time our machines were inspected for guard compliance?
5. What would you do if a machine jammed while you were operating it?

TOOLBOX TALK SIGN-OFF

Date: _____ Supervisor: _____

Project: _____ Location: _____

Attendance sheet attached: [ ] Yes

