

SE TX Hazard Alert Loose Clothing (Nov 2021)

With the weather getting colder, many employees will be wearing more clothing to keep warm along with their personal protective equipment. Many serious injuries are reported in SETX each year that are related to a worker being pulled into rotating equipment due to gloves or other clothing. It's important to ensure equipment, especially rotating parts, are properly guarded and protects employees from becoming entangle in the equipment. Implement administrative procedures to minimize risk, select safe personal protective equipment based on the task, and train employees on the hazards of rotating equipment.



In SE TX in FY 21 there were four incidents involving gloves being pulled into equipment:

- Employee was enlarging the diameter of wooden rings on transformer with a router when the bit of the router caught the glove partially amputating his right thumb.
- Employee was rolling a piece of metal in a machine when the glove got caught in the corner of the steel they were rolling and the machine partially amputated the tip of the left index finger.
- Employee was using a mag-drill while on a plate. The drill bit created a long turning that likely contacted the glove while applying coolant. The glove was drawn into the rotating drill bit amputating the left thumb.
- Employee was bending steel using a rebar bending machine bending two pieces of rebar at the same time. They were pushing the rebar into steel rollers when the left glove was caught on steel roller crushing/amputating his left pinky finger.

In SETX in FY 21 there were three incidents involving clothing being pulled into equipment:

- Employee was walking between an operator station and the edge of an operating lathe. Their shirt became tangled in the 2" diameter piece of bar stock on the lathe machine. They struck the ground and hit their head suffering a squeezing injury to the left arm and an acute traumatic brain injury.
- Employee was attempting to pull 2-7/8", 8' long, pup joint on a rack system when the machine activated. His clothes were caught by a burr on the end of a spinning pipe. They suffered a broken left arm, broken left clavicle, fracture in neck, and trauma to right side rib and chest.
- Employee was working at a glass recycling plant. Employee was walking through the plant adjacent to a conveyor that moves product into silos for outbound loading. Their safety vest got caught in a rotating chain and sprocket that powers the conveyor. They instantly grabbed the vest to attempt to free it and the rotating chain pulled the gloved hand into the sprocket. They were able to free the gloved hand on their own. They suffered a laceration/amputation of left hand fingers.

OSHA Hazard Prevention Tips

- All mechanical motion is potentially hazardous. In-running nip points, rotary or circular motions that gears, rollers, belt drives, and pulleys generate are all hazardous mechanical motion¹.
- Evaluate machine guarding, housekeeping practices, employee apparel, and employee training². Several resources are listed at the end of this flyer.
- Employees should not wear loose-fitting clothing, jewelry, or other items that could become entangled in machinery, and long hair should be worn under a cap or otherwise contained to prevent entanglement in moving machinery².
- As with gloves, protective clothing for workers operating powered cutting, shaping, and boring, and rotating equipment should not pose a greater risk than the one being addressed. Avoid loose clothing that could snag in moving parts and pull a worker into harm. Also avoid excessive clothing that could result in reduced mobility or heat exhaustion. Use common sense in your decision making³.

WorkSafe BC Safe Work Practices⁴

Clothing

- Wear close-fitting clothing
- Tuck your shirt into your pants
- If you must wear a long-sleeved shirt to meet health and safety requirements, make sure to button any cuffs it has. If long-sleeved shirts are not required, wear short-sleeved shirts. They are less likely to get caught by moving parts.

Gloves

- Do not wear gloves when working near rotating shafts or other moving machinery parts.
- If you must wear gloves for health and safety reasons, make sure your supervisor or safety representative has identified them as suitable for your task.

Jewelry

- Do not wear jewelry at work.
- If you wear a medical alert bracelet, secure it by wearing a transparent surgical or adhesive band that holds the bracelet snugly to your skin.

Long Hair

- Wear long hair in a bun, tie it back, or cover it with a cap or hairnet.
- If you are not sure your hairstyle is safe for your particular work area, check with your supervisor or safety representative. Keep facial hair short so it won't be caught by moving machinery parts. Cover long facial hair with a net or use clips or elastic bands to keep it securely away from moving machinery or equipment parts.

Safeguarding

- Always use the available safeguards. If the equipment you work on or around isn't properly safeguarded, talk to your supervisor or employer.

Resources for Machine Guarding and Incident Prevention

¹ OSHA Fact Sheet Amputations (DSG FS-3508 04/2012)

<https://www.osha.gov/sites/default/files/publications/amputation-factsheet.pdf>

² Safeguarding Equipment and Protecting Employees from Amputations (OSHA 3170-02R 2007)

<https://www.osha.gov/sites/default/files/publications/osha3170.pdf>

³ A Guide for Protecting Workers from Woodworking Hazards (OSHA 3157 – 1999)

<https://www.osha.gov/sites/default/files/publications/osha3157.pdf>

⁴ The Hazards of Loose Clothing, Gloves, Long Hair, and Jewellery WorkSafe BC (SA 12-01)

<https://www.worksafebc.com/en/resources/health-safety/hazard-alerts/the-hazards-of-loose-clothing-gloves-long-hair-and-jewellery>

This information has been developed by an OSHA Compliance Assistance Specialist and is intended to assist employers, workers, and others improve workplace health and safety. While we attempt to thoroughly address specific topics [or hazards], it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in this presentation. This information is a tool for addressing workplace hazards, and is not an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. This document does not have the force and effect of law and is not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. It does not create (or diminish) legal obligations under the Occupational Safety and Health Act. Finally, OSHA may modify rules and related interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov. Incidents are based on the first report of injury and may not reflect the final determination if applicable. For questions contact Jim Shelton at the Houston North Area Office shelton.james@dol.gov.