

Working around conveyors and stackers

After only their fourth day on the job, a groundsperson working at a gravel pit was killed when they became caught between the tail pulley of the conveyor system and the frame of the cone crusher. Although an access guard door was in place to protect contact with pulleys, a space was excavated under this guard door so workers could crawl beneath it. It was routine for workers to adjust the belt's position while the system was running—even though the manufacturer's instructions required that the system be shut down first.

Explain dangers

Many pits and quarries have installed some type of conveyor system. A conveyor system can carry a lot of material and requires a lot of energy to do this. If this energy is directed incorrectly, it could seriously injure workers.

Conveyors are the most common cause of serious injuries and safety violations in the aggregates industry. Most occur during cleaning or maintenance of the conveyor when guards, pull cords, emergency stops, or interlocking systems are bypassed. Injuries that could result from working around conveyor systems include the following:

- Crushing and pinching
- Entanglement
- Friction burns
- Shearing or cutting
- Being dragged into the conveyor
- Being struck by falling or moving material

The following hazardous areas around a conveyor could cause injury:

- Rotating drums
- Any place where idlers and the conveyor skirt meet
- Belt drive
- The skirt or scraper
- Belt take-up or tensioning devices
- Exposed drive shafts

- Moving loads

Identify controls

- Always follow company rules when working around conveyors.
- Never bypass guards or skip lockout procedures.
- Always follow the lockout procedures when materials jam or cause blockage, or when doing repairs or maintenance on the belt.
- Never use a tool to dislodge materials from an energized conveyor.
- Follow the company's safe procedures when lubricating conveyors and dressing belts.
- Never remove or alter emergency stops, interlocks, or guards. It is against the law.
- In an emergency, use the pull cord or e-stop to shut down the conveyor. Do not use pull cords or e-stops for normal shutdowns.
- Keep the areas around the conveyor systems tidy. Tools, rocks, and rubbish can cause trips, fires, or conveyor damage.
- Never climb, ride, or step over operating conveyors. Use protected passageways and designated travel ways.
- Avoid wearing loose-fitting clothing and tie back long hair to prevent entanglement.
- Ensure you are familiar with the sound of the start-up alarm.
- Always obey signs.

Demonstrate

Review Section 196 of the *Regulation for Mines and Mining Plants* (R.R.O 1990, Reg. 854) with your crew.

Show workers where they can find more information about the company's rules for working around conveyors.

Show the workers where emergency stop mechanisms are located along the conveyor.