

2020

Top 20 Cited Violations
Peru, IL Field Office

56/57.12004 Electrical conductors.

Electrical conductors shall be of a sufficient size and current-carrying capacity to ensure that a rise in temperature resulting from normal operations will not damage the insulating materials. Electrical conductors exposed to mechanical damage shall be protected.

56/57.14100 Safety defects; examination, correction and records.

(a) Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift.

(b) Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons.

(c) When defects make continued operation hazardous to persons, the defective items including self-propelled mobile equipment shall be taken out of service and placed in a designated area posted for that purpose, or a tag or other effective method of marking the defective items shall be used to prohibit further use until the defects are corrected.

(d) Defects on self-propelled mobile equipment affecting safety, which are not corrected immediately, shall be reported to and recorded by the mine operator. The records shall be kept at the mine or nearest mine office from the date the defects are recorded, until the defects are corrected. Such records shall be made available for inspection by an authorized representative of the Secretary.

56/57.14107 Moving machine parts.

(a) Moving machine parts shall be guarded to protect persons from contacting gears, sprockets, chains, drive, head, tail, and takeup pulleys, flywheels, couplings, shafts, fan blades, and similar moving parts that can cause injury.

(b) Guards shall not be required where the exposed moving parts are at least seven feet away from walking or working surfaces.

56/57.20003 Housekeeping.

At all mining operations—

(a) Workplaces, passageways, storerooms, and service rooms shall be kept clean and orderly;

(b) The floor of every workplace shall be maintained in a clean and, so far as possible, dry condition. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places shall be provided where practicable; and

(c) Every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards, as practicable.

56/57.12028 Testing grounding systems.

Continuity and resistance of grounding systems shall be tested immediately after installation, repair, and modification; and annually thereafter. A record of the resistance measured during the most recent tests shall be made available on a request by the Secretary or his duly authorized representative.

56/57.12032 Inspection and cover plates.

Inspection and cover plates on electrical equipment and junction boxes shall be kept in place at all times except during testing or repairs.

56/57.14101 Brakes.

(a) *Minimum requirements.* (1) Self-propelled mobile equipment shall be equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels. This standard does not apply to equipment which is not originally equipped with brakes unless the manner in which the equipment is being operated requires the use of brakes for safe operation. This standard does not apply to rail equipment.

(2) If equipped on self-propelled mobile equipment, parking brakes shall be capable of holding the equipment with its typical load on the maximum grade it travels.

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50.30 Preparation and submission of MSHA Form 7000-2—Quarterly Employment and Coal Production Report.

#9

(a) Each operator of a mine in which an individual worked during any day of a calendar quarter shall complete a MSHA Form 7000-2 in accordance with the instructions and criteria in §50.30-1 and submit the original to the MSHA Office of Injury and Employment Information, P.O. Box 25367, Denver Federal Center, Denver, Colo. 80225, within 15 days after the end of each calendar quarter. These forms may be obtained from the MSHA District Office. Each operator shall retain an operator's copy at the mine office nearest the mine for 5 years after the submission date. You may also submit reports by facsimile, 888-231-5515. To file electronically, follow the instructions on MSHA Internet site, <http://www.msha.gov>. For assistance in electronic filing, contact the MSHA help desk at 877-778-6055.

56.4201 Inspection.

(a) Firefighting equipment shall be inspected according to the following schedules:

(1) Fire extinguishers shall be inspected visually at least once a month to determine that they are fully charged and operable.

(2) At least once every twelve months, maintenance checks shall be made of mechanical parts, the amount and condition of extinguishing agent and expellant, and the condition of the hose, nozzle, and vessel to determine that the fire extinguishers will operate effectively.

56.12018 Identification of power switches.

Principal power switches shall be labeled to show which units they control, unless identification can be made readily by location.

56.11001 Safe access.

Safe means of access shall be provided and maintained to all working places.

56.14132 Horns and backup alarms.

(a) Manually-operated horns or other audible warning devices provided on self-propelled mobile equipment as a safety feature shall be maintained in functional condition.

(b)(1) When the operator has an obstructed view to the rear, self-propelled mobile equipment shall have—

(i) An automatic reverse-activated signal alarm;

(ii) A wheel-mounted bell alarm which sounds at least once for each three feet of reverse movement;

(iii) A discriminating backup alarm that covers the area of obstructed view; or

(iv) An observer to signal when it is safe to back up.

(2) Alarms shall be audible above the surrounding noise level.

(3) An automatic reverse-activated strobe light may be used at night in lieu of an audible reverse alarm.

(c) This standard does not apply to rail equipment.

56.4101 Warning signs.

Readily visible signs prohibiting smoking and open flames shall be posted where a fire or explosion hazard exists.

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56.9300 Berms or guardrails.

(a) Berms or guardrails shall be provided and maintained on the banks of roadways where a drop-off exists of sufficient grade or depth to cause a vehicle to overturn or endanger persons in equipment.

(b) Berms or guardrails shall be at least mid-axle height of the largest self-propelled mobile equipment which usually travels the roadway.

(c) Berms may have openings to the extent necessary for roadway drainage.

(d) Where elevated roadways are infrequently traveled and used only by service or maintenance vehicles, berms or guardrails are not required when all of the following are met:



Seat Belt Safety
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Seat Belt Usage

- From 2007 to 2017, in 38 fatalities involving mobile equipment, miners did not have a seat belt on.
- 35 of these victims (92%) may have survived had they been wearing an adequate seat belt.
- 30 of the victims had an adequate belt available but did not use it.

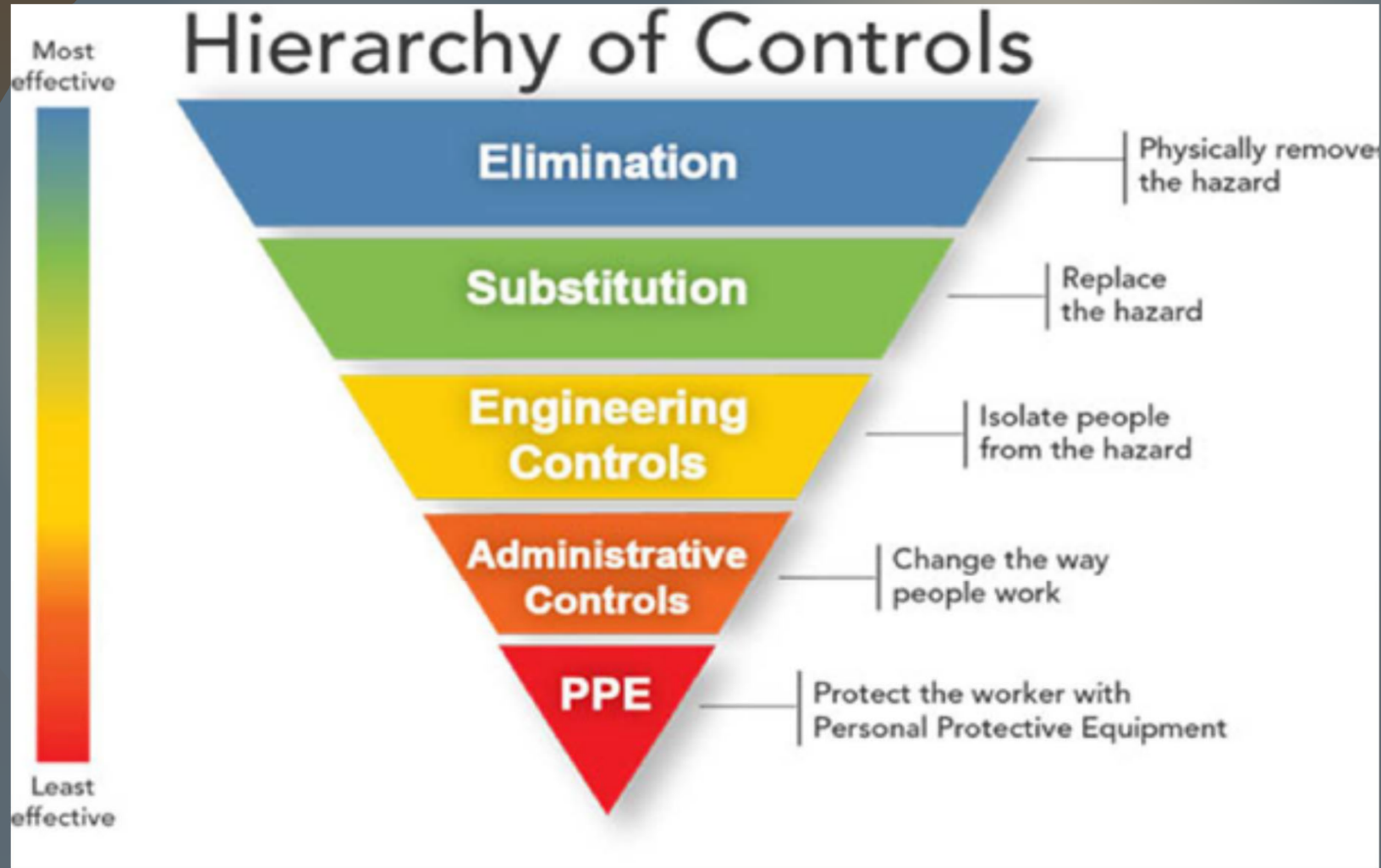
Lack of Seat Belt: Roll Over & Ejection



Alliance: MSHA / Association of
Equipment Manufacturers
Report: Seat Belt Use on Mobile
Equipment

<https://www.aem.org/AEM/media/docs/Safety/Seat-Belt-Use-Mobile-Equipment.pdf>

Administrative vs Engineering Controls



AEM / MSHA Report: Seat Belt Use on Mobile Equipment

Active Control Interlocks(i.e., seat switch, ignition switch)

Advantages

- Difficult to defeat
- Requires seat belt usage to operate machine
- Minimal management oversight

Disadvantages

- Possible unintended consequences
- Design complexity and associated risk must be understood

AEM / MSHA Report: Seat Belt Use on Mobile Equipment

Administrative Controls(i.e., nuisance alarm, training, policies)

Advantages

Ease of implementation and training
Requires minimal resources and cost

Disadvantages

Ineffective for equipment operators who refuse to wear seat belts

BUCKLE UP!



**SAFETY STARTS
WITH A SNAP!**

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Conveyor Belt Safety

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202-693-9547

Lock-Out/Tag-Out

A belt foreman was fatally injured on March 28, 2018, when the conveyor belt inadvertently started as he and a co-worker were in the process of splicing an underground conveyor belt. The victim became entangled with the belt splicing tools as the conveyor belt moved.



Lock-Out Tag-Out Best Practices

- Before splicing conveyor belts:
 - Open the circuit breaker that supplies electrical power to the belt drive.
 - Open the visual disconnect for the cable that supplies electrical power.
 - Lock-out and tag-out the visual disconnect yourself and NEVER rely on someone to do this for you.
 - Release the tension in the conveyor belt take-up/storage unit.
 - Block the conveyor belt against motion.
- Ensure that no miner is in harm's way before starting the conveyor belt.
- Provide a visible and/or audible system, with a start-up delay, to warn persons that the conveyor belt will begin moving.
- Establish policies and procedures for performing specific tasks on conveyor belts and ensure all miners are trained.

Proper Guarding

A miner was fatally injured on January 26, 2017 when he contacted a moving drive roller for the section belt. The victim was positioned between the guard and the conveyor belt drive when he came in contact with the shaft of the belt drive roller.



Guarding Best Practices

- All belt drives should have adequate guarding, without doors intended to be removed while equipment is running.
- Whenever guarding is removed to perform work, belt drives must first be de-energized and blocked against motion. All employees should be trained in these procedures and a lock and tag should be provided to miners who work on conveyor belts.
- All employees working around moving conveyor belts and their associated components should be trained in hazard recognition and avoidance.
- In addition, persons conducting examinations should be trained to perform thorough examinations to identify hazards.

Crossovers

A mine examiner was killed when he apparently lost his footing attempting to cross over a moving conveyor belt on August 25, 2017. He fell on to the belt and hit a belt crossover located approximately 10 feet away. The victim was found beside the conveyor belt just outside the mine entrance.



Crossovers

A mine examiner received fatal injuries after he fell on to a conveyor belt while apparently attempting to cross it on October 23, 2017. He was transported by the belt conveyor system to the raw coal pile located outside of the mine.



Crossover Best Practices


- Install adequate crossovers at all belt transfer points and train miners to use them. All crossovers, mid-belt crossovers, and crossunders should be evaluated and modified as appropriate.
- Install barriers at strategic locations at belt transfers to block areas that can be used to improperly cross the belt.
- Install a visual and audible pre-start alarm that signals several seconds before the start up of the belt.
- Install pull cords and switches that control power to the conveyor belt to stop the conveyor belt in emergencies. Switches may be hung across the conveyor belt.

Replacement Steel Crossover



Metal Barrier at Transfer location





Discussion



Comments and Questions

"Daddy"
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