

- 56.20011 Type of condition(s) leading to fatalities:
Barricades or warning signs not posted at all approaches where health or safety hazards exist that are not immediately obvious.
- 57.3360 Type of condition(s) leading to fatalities:
Necessary ground support not designed, installed, and maintained in areas where persons work or travel.

PRIORITY STANDARDS AND CONDITIONS: COAL

75.202 (includes all subparts)

- Work or travel under/ by unsupported roof or rib.
- Incompetent roof and ribs not scaled down.
- Additional roof support not provided.

75.220(a)(1)

- Failure to install supplemental support or take additional measures when adverse roof conditions are encountered.
- Body positioning prohibited by plan.
- Unsafe pillar recovery identified.
- Excessive cut depth (deeper than approved cut depth in plan) identified.
- Excessive roof bolt spacing (use PIL No. 108-V-7 for guidance) identified.
- Visible warning devices not provided.
- Wide entries identified.

75.511

- Electrical work performed by non-qualified person.
- Failure to lock out and tag disconnecting devices prior to performing electrical work.

75.1403-10(i)

- Haulage roadways not maintained free of bottom irregularities, debris, and wet, muddy conditions.

75.1725(a)

- Mobile and stationary machinery and equipment not maintained in safe operating condition:
 - Remote control tram interlocks are taped up or otherwise disarmed.
 - Operating controls have been altered or stick unintentionally.
 - Safety interlocks on mobile bridge conveyors defective or fouled with debris.
 - Operator compartment doors or shields removed.

75.1725(c)

- Repairs or maintenance performed on machinery without removing power.
- Machinery not blocked against hazardous motion.
- Hydraulic repairs conducted on pressurized hoses and fittings.

77.404(c)

- Repairs or maintenance performed with power on.
- Machinery not blocked against motion.

77.1607(g)

- Failure to ensure that all persons are clear before starting or moving equipment.

77.1607(n)

- Brakes not set on unattended mobile equipment.
- Wheels on mobile equipment not blocked or turned into bank/ berm when parked on grade.

77.1710(g)

- Failure to wear fall protection where danger of falling.

77.1710(i)

- Failure to wear seat belts.



**PREVENT FATALITIES
RULES TO LIVE BY**

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**U.S. Department of Labor
Mine Safety and Health Administration**

MSHA's Rules to Live By An Overview

MSHA's Fatality Prevention Program, "Rules to Live By," is designed to prevent deaths from mining through stakeholder outreach, education, and enhanced enforcement. The goal of "Rules to Live By" is to reduce deaths and injuries from violations of targeted standards by having mine operators identify and correct all hazardous conditions. Mine operators will be expected to monitor the work environment continually, identify hazardous conditions, fix them and make sure they stay fixed. MSHA will direct enforcement toward making sure that these conditions known to lead to death or serious injury are not present at mines.

While the mining community achieved a record-setting low number of mining deaths in the United States in 2009 and has seen a significant decline in fatal mining accidents during the past 10 years, too many miners still lose their lives in preventable accidents. From 2000 through 2008, 589 miners lost their lives at work. MSHA evaluated these deaths and identified the conditions and practices that contributed to the 589 deaths, and the safety standards that were violated. The MSHA analysis identified 24 standards – 13 in metal and nonmetal mining and 11 in coal mining – frequently cited in fatal accident investigations in 9 accident categories.

First through outreach and education, then by enhanced enforcement, MSHA will increase the focus of the mine industry on these 24 critically important standards. MSHA will disseminate information throughout the mining industry to improve recognition and control of these conditions and will engage miners and miners' representatives in this effort during inspections. The MSHA website will include a single source page with compliance assistance materials including engineering suggestions and other resources to ensure that mine operators and miners have information to address and eliminate workplace hazards.

MSHA will begin enhanced enforcement in mid-March 2010, focusing more attention and enforcement activity on these 24 standards and associated conditions with increased scrutiny for violations of the standards. Inspectors will be instructed to evaluate gravity and negligence carefully, consistent with the seriousness of the violation, when citing violations of priority standards. Inspectors will receive new online training, enforcement summaries, and tip sheets, as well as pop-up messages about priority standards on their laptop computers.

One death is too many.

We can end fatalities in this nation's mines!

PRIORITY STANDARDS AND CONDITIONS: METAL/NONMETAL

56.9101

- Equipment operator not maintaining control of equipment while in motion.
- Operating speeds not consistent with the conditions.

56.12017

- Power circuits not de-energized before working on circuits.
- Switches not locked out or other measures taken to prevent power circuits from being energized without knowledge of individuals working on them.

56.14101(a)

- Service brakes not capable of stopping and holding equipment with its typical load on maximum grade it travels.
- Parking brakes not capable of holding equipment with its typical load on maximum grade it travels.
- A brake system component not maintained in a functional condition.

56.14105

- Machinery or equipment not blocked against motion during repairs or maintenance.
- Equipment not effectively de-energized.
- Persons not protected against hazardous motion during testing or adjustments.

56.14130(g)

- Failure to wear seat belts while operating mobile equipment.

56.14131(a)

- Seat belts not worn when operating or riding in haul truck.

56.14205

- Using machinery, equipment, or tools beyond design capacity intended by manufacturer.

56.14207

- Mobile equipment left unattended and controls not placed in park position.
- Provided parking brake not set.
- Mobile equipment parked on grade and wheels/ tracks not chocked or turned into a bank.

56.15005

- Persons not wearing fall protection when exposed to fall hazard.

56.16002(c)

- Persons entering bins, tanks, hoppers or surge piles not wearing fall protection where there is a fall hazard.
- A second person not provided to tend lifeline.
- Persons entering bins and hoppers when flow of materials has not ceased and/or supply and discharge equipment not locked out.
- Safe access in and around working areas not provided.

56.16009

- Persons failing to stay clear of suspended loads.