



Quarterly Training Summit

February 2016

U.S. Department of Labor
Mine Safety & Health Administration

February 10, 2016

Agenda

12:30pm – Jeff Duncan	Welcome and Introduction of Assistant Secretary Main
12:32pm – Joe Main	Opening Remarks
12:40pm – Scott Beverly	Review of Coal Fatalities Review of Coal Serious Accidents Update on “Call to Safety” Initiative
12:50pm – Larry Trainor	Review of MNM Fatalities Review of MNM Serious Accidents
1:00pm – Neal Merrifield Joe Casper, NSSGA	MNM February Safety Alert
1:05pm	Questions
1:28pm – Joe Main	Closing Remarks



MSHA Training Summit Coal Mines 4th Quarter 2015

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Coal Fatalities 4th Quarter 2015

- 1 Fatality occurred on December 8, 2015
- Classified as Powered Haulage
- Underground
- Supply Man



4th Quarter - December 2015 Fatality

On Tuesday, December 8, 2015, a 20-year-old supply man with 2 years of mining experience was killed while driving a tractor that was pulling a shield hauler trailer loaded with a longwall face conveyor chain down a nine degree inclined slope. He was unable to navigate the left-hand turn at the bottom of the slope and collided with the coal rib causing the 5th wheel trailer connection to break. The trailer hit the operator's compartment and fatally injured the victim.



Best Practices

- Ensure that haulage equipment is compatible with all conditions and haulage road grades.
- Maintain the slope and other haulage ways to allow safe travel.
- Ensure that the weight of the load being transported does not exceed the capability and braking capacity of the haulage equipment.
- Perform pre-operational examinations to identify, report, and correct hazards affecting the safe operation of equipment before the equipment is used.
- Train all miners assigned to operate mobile equipment in the capabilities and load capacities for the road grade that will be travelled.



Coal Fatalities 1st Quarter 2016

3 Fatalities

- West Virginia Powered Haulage (Underground)
- Pennsylvania Fall of Rib (Underground)
- Kentucky Machinery (Underground)



Coal Fatalities by Occupation

1st Quarter 2016

- Section Foreman- 1
- Continuous Mining Machine Operator-2



1st Quarter – January 2016 Fatality

Fatal No. 1. On January 4, 2016, a 53-year-old miner received fatal injuries when he became entangled in a moving underground belt. The victim was preparing to change out a hold up roller when he was caught by the moving belt and roller.



Best Practices

- Never perform work on a moving conveyor belt.
- Ensure that power is off with a visual disconnect before any work is performed, use your own lock and tag.
- Ensure that machinery is blocked against motion before performing maintenance or repairs.



1st Quarter – January 2016 Fatality

Fatal No.2. On January 16, 2016 a 31-year-old mining machine operator was fatally injured when a section of coal/rock rib pinned him to the mine floor.



Best Practices

- Train all miners and supervisors to conduct thorough examinations of the roof, face, and ribs where persons will be working and traveling. Correct all hazardous conditions before allowing persons to work or travel in such areas.
- Be aware of potential hazards at all times when working or traveling near ribs. Take additional safety precautions when mining heights increase to prevent development of rib hazards.
- Avoid areas of close clearance between ribs and equipment.
- Know and follow the approved roof control plan and provide additional support when roof or rib fractures, or other abnormalities are detected. Remember, the approved roof control plan only contains minimum requirements.



Best Practices

- Install rib bolts with adequate surface coverage hardware on cycle and in a consistent pattern for the best protection against rib falls. In addition to rib bolts and mesh, setting post on 4 foot centers along questionable rib lines will provide additional protection against rib rolls.
- Be alert for changing conditions, especially after activities that could cause roof disturbance. Report abnormal roof or rib conditions to mine management.
- Adequately support or scale any loose roof or rib material from a safe location. Use a bar of suitable length and design when scaling.
- Danger off hazardous areas until appropriate corrective measures can be taken.



1st Quarter – January 2016 Fatality

Fatal No.3. On January 19, 2016 a 36-year-old mining machine operator was fatally injured between the mining machine and the coal rib.



Best Practices

- Avoid “RED ZONE” areas when operating or working near a remote controlled continuous mining machine. Ensure all personnel; including the equipment operator is outside the machine turning radius before starting or moving the equipment. **STAY OUT of RED ZONES.**
- Maintain a safe distance from any moving equipment. Position the conveyor boom away from the operator or other miners working in the area or when moving the machine.
- Perform manufacturer’s pre-operation examinations each shift to ensure the proximity detection system is in proper working order to verify that the shutdown zones are sufficient to stop the machine before contacting a miner.
- Always ensure continuous mining machine pump motors are disabled before handling trailing cables and never defeat machine safety controls.



CALL TO SAFETY

Three fatalities in the first 19 days of 2016 in the nation's coal mines.

In 2015 coal fatalities were at their lowest levels ever. However, in the first 19 days of 2016, three coal miners lost their lives in three separate coal mine accidents.

As a result, MSHA is issuing a **CALL TO SAFETY** for the nation's coal mine operators and miners to take a much needed look at compliance. The last time the nation had experienced this number of coal mine accidents in such a short time frame was in 2006 when 15 miners lost their lives between January 2, 2006 and January 19, 2006. This recent rash of fatal accidents is a **WAKE UP CALL** to the nation's miners to take notice and take care of themselves.



In light of current market conditions, we all need to be mindful that safety and health protections necessary to protect our nation's miners need to be in place every day at every coal mine in the country. Every miner deserves to work his or her shift and return home at the end of the day, safe and healthy.



Mines & Miner Outreach

Mines visited		Miners contacted
District 02	44	557
District 03	46	1,882
District 04	63	1,681
District 05	27	794
District 06	24	376
District 07	33	664
District 08	22	2,554
District 09	12	640
District 10	11	691
District 11	10	532
District 12	21	1,434
Total	313	11,805



Coal: Near Misses and Non-Fatal Accidents



On 11/2/2015, while working in the belt entry of the MMU, a miner was struck in the back and right leg by three rocks which fell from the roof. The three rocks were all approximately 2½-inches thick. The largest was 33” long and 21” wide. The mining height was about 60-inches. The rocks fell out from between a damaged roof bolt. The miner was flown to the nearest medical facility and was treated and released with only minor injuries. (No internal injuries and no broken bones).



Best Practices

- Visually examine the roof, face, and ribs immediately before any other work is started in the area.
- Be alert to changing conditions, especially after activities that could cause roof disturbance.
- Establish in the roof control plan a bolt installation pattern that effectively supports the roof strata.
- Adequately support or scale down any loose roof or rib material from a safe location.
- Add additional supports at any indication of adverse roof conditions.



During a pre-shift examination conducted on January 7, 2016, a mine examiner discovered an electrical fire on a power center outby the section at cross cut 14 between the conveyor belt and the travelway. The fire was contained in the power center enclosure. No injuries were reported.



Best Practices

- Properly maintain equipment.
- Conduct complete and thorough examinations.
- Always ensure adequate fire fighting equipment is readily available and serviceable.
- Remove all combustible materials from the working or affected area.



MSHA Training Summit Metal and Nonmetal 4th Quarter 2015

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MNM Fatalities 4th Quarter 2015

- Surface Mines – 2
- Underground Mine – 0
- Classifications
 - Machinery – 1
 - Powered Haulage – 1



MNM Fatalities by State 4th Quarter 2015

- Nevada – 1
- Iowa – 1



MNM Fatalities by Commodity 4th Quarter 2015

- Gold – 1
- Cement – 1



MNM Fatalities by Occupation 4th Quarter 2015

- Contractor – 1
- Truck Driver – 1



4th Quarter - December 2015 Fatalities

On December 15, 2015, a 75-year old tow truck laborer was killed at a cement plant. As the tow truck operator was lowering the truck's boom, the boom suddenly fell striking the victim.



4th Quarter - December 2015 Fatalities

On December 28, 2015, a 42-year-old miner with 3 years of experience was killed at a surface gold mine. The operator of a haul truck was attempting to climb a snow covered access road. His truck slid backwards, striking the cab of the victim's haul truck, which also was recovering from sliding backwards down the same access road. A third haul truck also slid down backwards while attempting to climb the access road several minutes later, colliding with the other wrecked haul trucks.



MNM: Serious Accidents



Serious Accident Alerts

Cement Plant – A contract employee (victim) was using a hand held rotary saw with a worn concrete blade to cut through a 6-inch iron pipe. As the victim attempted to cut the pipe from the bottom up, the saw bounced off the pipe striking the victim in the chest causing a severe wound. Victim was transported to a local hospital and was released several days later.



Serious Accident Alerts

Surface Lime Mine –A truck driver, with a bulk load of sulfuric acid, was off-loading 94% sulfuric acid. During the off-loading process, a pressurized 3-inch hose uncoupled, saturating the victim with sulfuric acid. The victim rinsed in an on-site chemical shower and was immediately transported to the hospital. The victim was then transported via life-flight to a burn center to undergo further evaluation and treatment.



Serious Accident Alerts

Surface Copper Mine – A miner was preparing to reposition an axle support in a Caterpillar 793H Haul Truck that was leaning against a torque tube. The miner was between the axle support and the differential while attempting to attach a clevis pin. The axle support shifted pinning the miner between the differential and the axle support. The miner suffered several broken ribs and bruised lungs.



Serious Accident Alerts

Underground Silver Mine – A miner was operating a mucker when he hooked something on the left rib as he lifted the bucket. The back end of the machine came off of the track, tipped and pinned him between the rib and the mucker. The miner received serious back injuries as a result.



Best Practices

- The truck driver must make sure that all equipment on his/her truck, including unloading hoses, are in good order.
- Ensure material is properly blocked to prevent unexpected movement. Assure energy cannot be released while the task is performed.
- Do not use worn blades due to the potential to cause kickbacks.
- Ensure that mobile equipment operators are adequately task trained in all phases of mobile equipment operation before performing work.



Neal Merrifield

Administrator

Metal and Nonmetal Mine Safety and Health
MSHA

Joe Casper

Vice President of Safety Services

The National Stone, Sand and Gravel Association



Machinery and Equipment Hazards Alert

- MSHA and The National Stone, Sand and Gravel Association co-sponsors
- Alert posted on MSHA.gov

ACCIDENTS INVOLVING MACHINERY WERE AMONG THOSE COMMONLY REPORTED IN 2014

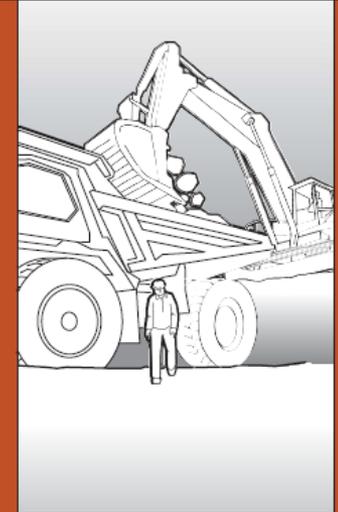
Could These Accidents Happen at Your Facility?



Debris flew into the eye of a miner while grinding on a crusher liner.



A miner was diagnosed with ultraviolet keratitis, or sunburn of the eye, after using a torch without eye protection.



An excavator bucket struck and crushed a haul truck driver who exited his vehicle as it was being loaded.

Use of Best Practices Can Eliminate These Kinds of Injuries.

- Ensure that machinery is powered off and secured against hazardous motion before performing repairs or maintenance. Consider all energy hazards, including electrical, mechanical, pneumatic and hydraulic systems.
- When locking and tagging out equipment, use individual locks and tags and ensure miners have the keys to their locks. Personnel should not remove locks that are not their own.
- Inspect machinery prior to use. Tag and remove from service machinery that requires repairs.



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Questions?



Use this link to submit training questions

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