

# MSHA Training Summit

October 28, 2015

# Agenda

- 12:30pm – Jeff Duncan  
Welcome and Introduction of Assistant Secretary Main
- 12:32pm – Assistant Secretary Joe Main  
Opening Remarks
- 12:40pm – Marcus Smith  
Review of Coal Fatalities  
Review of Coal “Serious Accidents”
- 12:48pm – Larry Trainor  
Review of MNM Fatalities  
Review of MNM “Serious Accidents”
- 12:56pm – Marvin Lichtenfels  
MNM Fall Safety Alert Update
- 1:04pm – Kevin Deel  
EFSMS Field Activity Update
- 1:10pm – Jeff Duncan  
TRAM Training Material Competition Winners
- 1:15pm – Questions?
- 1:28pm Assistant Secretary Joe Main Closing Remarks

# MSHA Training Summit Coal Mines 3rd Quarter

October 28, 2015

# Coal Fatalities 3rd Quarter 2015

## 2 Fatalities

- Kentucky                      Machinery                      (Underground)
- Alabama                      Slip or Fall of Person                      (Surface)

# Coal Fatal Accidents By Occupation 3<sup>rd</sup> Quarter 2015

- Electrician – 1
- Bulldozer Operator - 1

# Coal 2015 Fatal Accidents

- 1 Underground Mine and 1 Surface Mine in 3<sup>rd</sup> Quarter
- Classifications:
  - Machinery – 1
  - Slip or Fall of Person – 1

**COAL MINE FATALITY** – On Wednesday, September 16, 2015, a 29-year-old electrician with 9 years of mining experience was killed while replacing a load locking valve on the cutter head jack of a continuous mining machine. Prior to working on the machine, pin boards were stacked in a single column to block the cutter head in place. The victim was positioned between the cutter boom and the pan with the load locking valve removed when the cutter head collapsed, fatally crushing the miner.

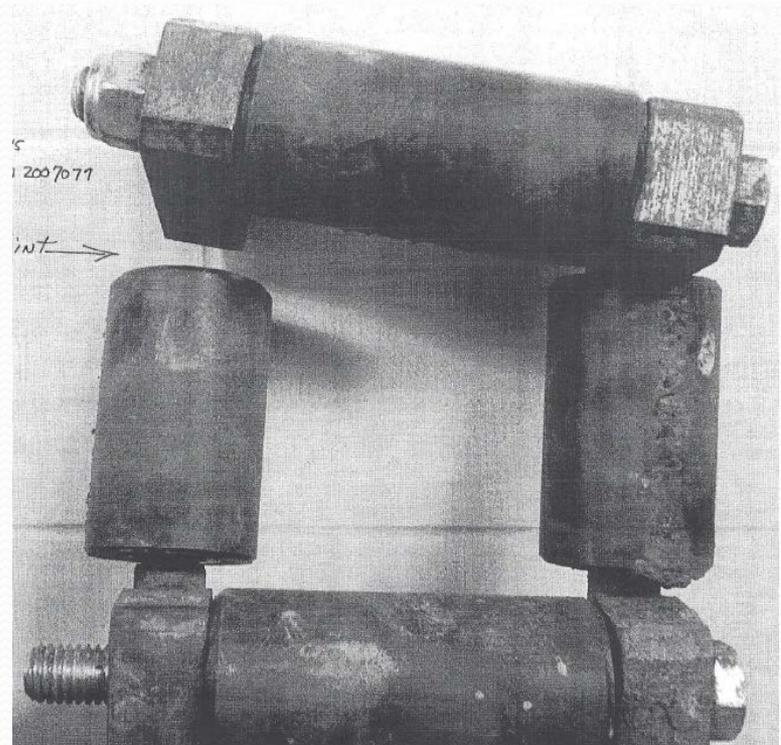
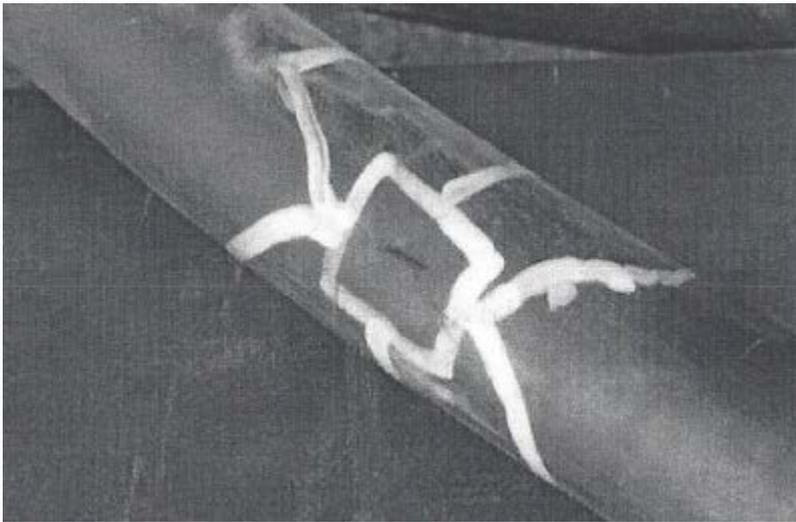


**COAL MINE FATALITY** – On September 26, 2015, a 58-year-old bulldozer operator with 10 years of mining experience was found lying unconscious on the ground next to a bulldozer. The mine foreman had driven the bulldozer operator to his designated working area. After seeing that the bulldozer was stationary, he returned and found the bulldozer operator lying on the ground. First aid was started immediately by mine personnel and they continued medical treatment until emergency personnel arrived. The miner was airlifted to the hospital where he remained until October 5, 2015, when he died from his injuries.



# Serious Accidents

**COAL MINE ACCIDENT** - on Tuesday, August 18, 2015, a roof bolter received an electrical shock when he attempted to free the trailing cable from the cable guide. While pulling the trailing cable away from the broken cable guide he touched the frame of the roof bolting machine with his other hand and received an electrical shock. The victim was wearing wet leather gloves at the time he received this electrical shock. The trailing cable was damaged by a damaged cable reel guide.



**COAL MINE ACCIDENT** - on Monday, September 21, 2015, a loading machine operator was shocked when he attempted to lift the trailing cable that supplied power to a continuous mining machine. The investigation revealed that a pin hole existed in the outer jacket of the cable and all three of the internal insulated phase wires were smashed.



# Best Practices

- Protect electrical cables from damage, especially from damage by mobile equipment.
- If an electrical cable is hit, immediately and thoroughly test it to determine if the insulation has been compromised.
- Repair damaged cables prior to energizing them.
- Conduct complete and thorough examinations.
- Properly maintain equipment.
- Wear properly maintained and adequately rated personal protective equipment.
- Task train all miners in job specifics prior to beginning their work activities.

# Metal and Nonmetal 3rd Quarter 2015

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# MNMM Fatal Accidents – 3<sup>rd</sup> qtr 2015

- Surface Mines – 4
- Underground Mine – 1
- Classifications
  - Machinery – 2
  - Falling/Sliding Material – 2
  - Other – 1

# MNM Fatal Accidents by State – 3rd qtr 2015

- Nevada – 1
- North Dakota – 1
- Georgia – 1
- Virginia – 1
- Ohio – 1

# MNM Fatal Accidents by Commodity – 3rd qtr 2015

- Sand & Gravel - 2
- Gold – 1
- Granite – 1
- Kaolin – 1

# MNM Fatal Accidents by Occupation – 3rd qtr 2015

- Superintendent – 1
- Contract Laborer – 1
- Loader Operator – 1
- Truck Driver – 1
- Driller – 1

On July 10, 2015, a 50-year old Superintendent with 26 years of experience was killed at a sand and gravel dredge operation. Two miners were attempting to dislodge the clam shell bucket from the bottom of the pond when the dredge capsized. One miner was injured but was able to swim to shore and summon assistance. The victim was recovered eight days later.



On July 15, 2015, a 25-year old contractor with 6 months of experience was killed at a Kaolin processing plant. The victim was working alone and entered a railcar to wash out residual product. The victim was later found unresponsive inside the railcar.



On August 3, 2015, a 64-year old loader operator , was engulfed by a stockpile failure while standing outside his loader.



On August 3, 2015, a 18-year old Truck Driver (seasonal associate) went underneath a storage tank when the tank ruptured covering the miner with material.



On August 3, 2015, a 26-year old miner was killed at an underground gold mine. The drill was traveling in the reverse direction of travel up a 10% slope and was carrying a 13½ ft. long drill steel in a rack that had been installed on the machine. The forward end of the drill steel struck a rib causing it to be pushed back toward the operator. The drill steel struck and killed the operator, and caused him to fall to the ground. No witnesses were present at the time of the accident.



# Serious Accidents



Cement Plant – A 200 ton bin fell through the floor. There were five miners under this bin on the bottom level just 10 minutes prior to the failure. MSHA’s Technical Support Division identified visible abrasion damage, resulting in loss of strength, during the investigation. The company did not have a preventative maintenance program and did not conduct any preventive maintenance on this 40 year old bin.



Surface Gold Ore – A contractor driller received minor injuries when the truck he was driving experienced engine failure while driving up a 40% grade road. The truck rolled backward, over a berm and barrel-rolled an estimated 10 times. The driller was wearing his seat belt.



Surface Crushed Limestone – A miner was seriously injured when the expanded metal walkway the he was standing on suddenly failed. The miner fell 10 feet directly to the ground below. The expanded metal walkway was covered with conveyor belt to aid in shoveling spillage. The conveyor belt allowed corrosive material to accumulate and accelerated the deterioration of the expanded metal. Further, the application of the conveyor belt masked the signs of deterioration on the walkway, making a thorough workplace examination difficult.



Surface Lime Mine – A miner was attempting to unclog a screw conveyor with a 3/8” poker rod while the screw conveyor was still in operation. During the process, the miner lost an arm when it became entangled in the screw conveyor.

# Best Practices

- Do not attempt to clear a jammed conveyor until power has been LOCKED OUT.
- Examine your work places for all possible hazards and correct them before you perform work.
- Always wear seat belts when operating mobile equipment.
- Conduct structural inspections periodically.
- Do not place yourself in a position that will expose you to hazards while performing a task.

# Seasonal Safety Initiative for Fall 2015

## Seasonal Safety Alert

During the fall, many intermittent mines are preparing for the winter season and performing annual shutdown or repair activities. During this time miners may be performing new or unfamiliar tasks, working with equipment they service only once a year, or working in a reduced-sized workforce.

This time of the year has historically seen a large number of powered haulage and machinery fatalities that occurred while disassembling portable plants, moving equipment into storage and breaking down equipment for major repairs.

For example, a front end loader operator died at a sand and gravel operation when he was caught between a conveyor frame and the bucket of an excavator. He was attaching chains to the conveyor section preparing to move it.



An equipment operator preparing to move a portable plant's conveyor head pulley section was struck and killed by the falling conveyor as he rigged it for lifting.

A crusher operator was killed when he was struck by a tire assembly on a conveyor belt. The bucket of a front end loader dropped suddenly while it was supporting the conveyor during disassembly.



### Possible hazardous tasks

- Disassembling conveyors and transporting and storing sections
- Accessing pumping stations, especially floating pump decks
- Rigging, lifting and towing equipment
- Rebuilding crushers and screens
- Winterizing sand wash facilities

### Possible hazardous conditions

- Unfamiliarity with tasks or equipment
- Working around water
- Working at height
- Working in cold weather, snow or ice

### Best practices

- Identify hazards through effective workplace exams
- Control hazards through detailed work plan
- Provide effective task training based on work plan
- Lock out and block equipment against hazardous motion
- Provide necessary PPE



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# Seasonal Safety Initiative for Fall 2015

- Letter from the M/NM Administrator to the M/NM industry
- Letter from the M/NM Administrator to the M/NM miner's representatives
- Letter from the M/NM Administrator to the M/NM Alliance members
- Walk and talks conducted by M/NM inspectors, coal inspectors, and Educational Field and Small Mine Services Specialists.
- MSHA's Website Homepage Announcement
- Seasonal Safety Alert

# Seasonal Safety Initiative for Fall 2015

## NE District

OAIMA – Ohio Aggregates Association – conference call

VTCA – Virginia Transportation and Construction Alliance – conference call

PACA- Pennsylvania Aggregates and Concrete Association – conference call

MAA- Maine Aggregates Association – In person

Pennsylvania Bluestone Association – In person

MTBMA- Maryland Transportation Builders & Materials Association – In person

# Seasonal Safety Initiative for Fall 2015

## SE District

Florida IMA

Rogers Group

SE District Conference Executive Committee

Mosaic, FL

Cemex, Demopolis, AL

Vulcan Materials, AL

Nystar Cumberland Mine, TN

Industrial Land Developers' new mine in TN

Martin Marietta SE Division

Martin Marietta Mid-Atlantic Division

39 unspecified mines in SE District

25 more unspecified mines

# Seasonal Safety Initiative for Fall 2015

## NC District

Iowa Limestone Producers (conference call, perhaps a meeting also)

Michigan Aggregate Assoc.

Minnesota Mines Safety Assoc.

Holmes Safety Assoc., Great Lakes Chapter

Indiana Aggregates Assoc.

ESSAR Steel (MN)

# Seasonal Safety Initiative for Fall 2015

## SC District

North Texas JA Holmes Association

Arkansas Lime

Oklahoma Aggregate Association

Unimin

Martin Marietta

Missouri Mine Rescue Association

Kansas City Mine Rescue Association

# Seasonal Safety Initiative for Fall 2015

## RM District

Colorado Stone Sand and Gravel Association

Colorado Rock Products

Colorado Division of Minerals, Geology and Mine Safety

Arizona Rock Products Association

Arizona State Mine Inspectors Office

Holmes Safety Association's Kansas Sunflower Safety Council

Nebraska Safety Center

South Dakota Associated General Contractors

Montana Mining Association

Southwest Wyoming Mutual Aid Association

Arizona Chapter of International Society of Mine Safety Professionals

# Seasonal Safety Initiative for Fall 2015

## WE District

CalCIMA

Two large quarries in So. California

Several mines in OR

Several mines in AK

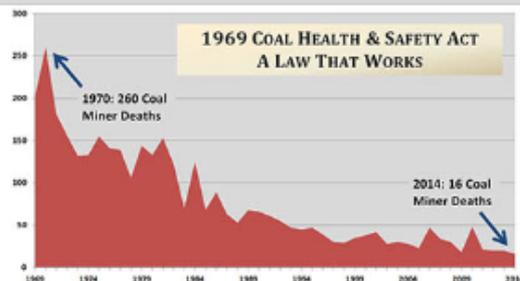
Nevada Mining

Oregon Aggregates



Mine Safety and Health Administration - MSHA  
- Protecting Miners' Safety and Health Since 1978

In Focus



45 Years of the Federal Coal Health and Safety Act

[1](#) [2](#) [3](#) [4](#) [5](#)

What's New?

- [Posted 10/13/2015 - MSHA and DOL Officials Tour Cumberland Mine in Waynesburg, Pennsylvania](#)  
View photos from the mine tour
- [Posted 10/6/2015 - News Release](#)  
Commission decision reinstates MSHA's POV authority over Brody Mining
- [Posted 10/5/2015 - MSHA initiative to combat 'deadliest month' for miners](#)  
Safety alert addresses seasonal preparation incidents
- [Posted 10/5/2015 - Seasonal Safety Alert](#)  
Learn about the potentially hazardous tasks and conditions miners may encounter as intermittent mines prepare for the winter season.

[--- More ---](#)

Data Transparency at MSHA

Mine Data Retrieval System (MDRS)

- [MDRS Home Page](#)
- Already know the Mine ID?

Pattern of Violations (POV)

- [POV Home Page](#)
- Already know the Mine ID?

Key Health and Safety Violation Tools

- [Tools Home Page](#)
- [S&S Rate Calculator](#)
- ['Rules to Live By' Calculator](#)
- [Part 75 Exam Rule Calculator](#)

Other Data Resources

From the Desk of Assistant Secretary Joseph A. Main

[Third Quarter 2015 Fatality Analysis](#)

During the third quarter of calendar year 2015, from July 1 to September 30, seven miners were killed in accidents at work, including five in metal and nonmetal mining and two in coal mining. Eight miners died in mining accidents during the same quarter in 2014. The fatalities bring the number of U.S. mining deaths to a total of 25 in the first three quarters of 2015, eight less than the first three quarters of 2014.



[Archives](#)

Information about New MSHA Rules

- [Final Rule on Lowering Miners' Exposure to Respirable Coal Mine Dust](#)
- [Final Rule on Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines](#)
- [Proposed Rule for Proximity Detection Systems for Mobile Machines in Underground Coal Mines](#)

Find It! / Quick Links

Hazardous Condition Reporting

- [Report a Hazardous Condition](#)
- [Reportar una condición peligrosa](#)

Immediately Reportable Accidents and Injuries

- [One Call Does It All! 1-800-746-1553](#)

New Mine/Miner Information/Miners' Rights/Miners' Representative

- [New Mine/Miner Info](#)
- [Miners' Rights and Responsibilities](#)
- [Miners' Representative Guide](#)

Mine Emergency Information

- [Mine Emergency Ops \(MEO\)](#)
- [Mine Emergency Mapping Tool](#)
- [Mine Rescue Home Page](#)

Quick Links (Hot Topics)

- [MSHA Training Center - A page for trainers](#)
- [Alerts/Hazards](#)
- [Metal/Nonmetal Resource Page](#)
- [MSHA's FOIA Page](#)
- [MSHA's Help Desk](#)
- [Upper Big Branch Mine-South Single Source Page](#)
- [JAHSA - Holmes Mine Rescue Association](#)
- [Joseph A. Holmes Safety Association](#)



## Metal and Nonmetal Mine Safety and Health Resource Page

If you operate or work at a coal mine, this page is probably not for you. This page is designed to assist operators and miners working at metal and nonmetal mines. Metal and nonmetal mining is divided into four broad categories: metal, nonmetal, stone, and sand and gravel. These broad categories encompass approximately 80 different commodities that are mined to provide the raw materials for producing items found all around us in our every day lives.

### Compliance and Policy Updates

#### Answers to Some FAQ's

- [PPL P14-IV-02 – Safety Belts and Lines \(30 C.F.R. §§ 56/57.15005\)](#)
- [Inspection of Mobile Equipment Parked on Ready Lines](#)
- [30 CFR § 56.14205](#) - Machinery, equipment, and tools
- [30 CFR § 56.9300](#) - Berms or guardrails
- [30 CFR § 56.14130\(a\)](#) - Roll-over protective structures (ROPS) and seat belts
- [30 CFR § 56.14207](#) - Parking procedures for unattended equipment
- [30 CFR § 56.20011](#) - Barricades and warning signs
- [30 CFR § 56.14200](#) - Warnings prior to starting or moving equipment.

#### Seasonal Safety Alert / Fatal Review 2015

- [Powerpoint](#)
- [PDF](#)

#### Near Miss & Serious Accidents

- [Near Miss and Serious Nonfatal Accident](#) - October 21
- [Near Miss and Serious Nonfatal Accident](#) - October 8
- [Near Miss and Serious Nonfatal Accident](#) - October 1
- [Near Miss and Serious Nonfatal Accident](#) - September 23
- [Near Miss and Serious Nonfatal Accident](#) - September 16
- [Near Miss and Serious Nonfatal Accident](#) - September 9
- [Near Miss and Serious Nonfatal Accident](#) - September 2
- [Near Miss and Serious Nonfatal Accident](#) - August 26
- [Near Miss and Serious Nonfatal Accident](#) - August 20
- [MNM Serious Accident Alert](#) - August 6
- [MNM Serious Accident Alert](#) - July 30
- [Near Miss and Serious Nonfatal Accident](#) - July 23
- [Near Miss and Serious Nonfatal Accident](#) - July 16



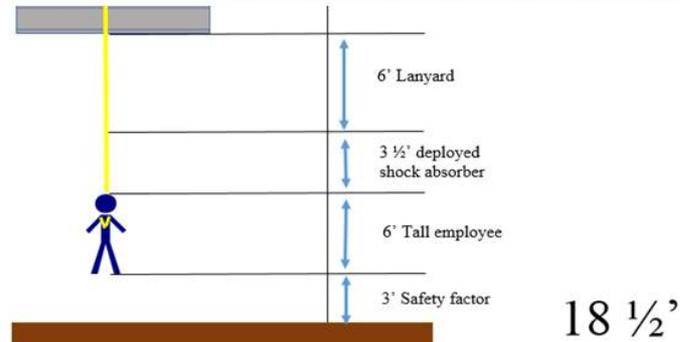
# **Educational Policy and Development**

# EFSMS Field Activities Update

• Mine Visits FY15 (approx. 50% were small mines)	780
• Instructor evaluations FY15 (New Record)	953
• Instructor Reviews FY15	1208
• Training Plan Reviews FY15 ;46-48-75/77	3174
• Training Program Field Reviews FY15 ;46-48-75/77	3769
• Training Classes FY15: Dust, Instructor workshops, Miner's Rights, Part 50, Supervisor Responsibility, Work Place Exams, Hazard Recognition	1000
• Qualification & Certification Training & Examinations FY15	402
• Stakeholder Associations and Labor Organizations Outreach FY15	140 mining stakeholder participants in 42 states
• Seasonal Safety Alert FY16 – There is an ongoing outreach effort to solicit collaboration with mining stakeholders to participate in all safety initiatives	EFSMS has been in contact with 52 mining stakeholders so far
• Participation in 2 MNM initiatives	
• MNM Fatal Reduction Initiative FY15	Approx. 700 mines visited
• MNM Seasonal Safety Initiative FY16	Approx. 581 mines visited so far

# TRAM 2015 Training Materials Competition Winners

- Printed Materials Winner:  
Personal Fall Arrest Equipment Task Training Guide  
Submitted by Safe Steps Training, LLC
- Mixed Media and Grand Prize Winner:  
Electrical Hazards in the Mining Industry  
Submitted by Southern Central College Center for  
Business and Industry



## Personal Fall Arrest Equipment Task Training Guide for Surface M/NM

**Safe Steps**



"Creating Safer Steps"  
In Your Workplace

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SafeStepsTraining.com  
MSHATraining.net  
CPRTrainingNewBernNC.com

Two construction workers are standing in front of a construction site. The worker on the left is wearing a white hard hat, sunglasses, and a high-visibility yellow and orange safety vest over a blue shirt. The worker on the right is wearing a white hard hat, safety glasses, and large red earplugs, along with a high-visibility yellow and orange safety vest over a white shirt. The background shows a construction site with concrete structures and a brown wall.

# MSHA46.COM

**LESSON**

**ELECTRICAL  
SAFETY**

[msha46.com](http://msha46.com)

**start  
lesson**



**Questions???**