Agenda

2:00 – Welcome and Introduction
2:05 – Opening Remarks
2:15 – Review of 2020 Fatalities
2:25 – Slip/Fall statistics/prevention
2:30 – Enforcement
2:35 – Educational Policy and Development
2:45 – Web site/MDRS update
2:50 – COVID-19 DOL/MSHA Update
2:55 – Questions
Closing Remarks
Opening Remarks

David G. Zatezalo
Assistant Secretary for Mine Safety & Health
Review of Fatalities
## Fatal Accident Statistics

9 Fatal Accidents

<table>
<thead>
<tr>
<th>Accident Classifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall of Person</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>Powered Haulage</td>
<td>2</td>
</tr>
<tr>
<td>Machinery</td>
<td>2</td>
</tr>
<tr>
<td>Handling of Material</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>2</td>
</tr>
<tr>
<td>1 fatality in:</td>
<td></td>
</tr>
<tr>
<td>CA, WV, IA, OH, LA, PA, and MI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand and Gravel</td>
<td>5 (56%)</td>
</tr>
<tr>
<td>Coal</td>
<td>2</td>
</tr>
<tr>
<td>Limestone</td>
<td>1</td>
</tr>
<tr>
<td>Cement</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Mine:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>7 (78%)</td>
</tr>
<tr>
<td>Underground</td>
<td>1</td>
</tr>
<tr>
<td>Surface of Underground</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mine Experience:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year or less</td>
<td>5 (56%)</td>
</tr>
<tr>
<td>2 Years or less</td>
<td>7 (78%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Experience:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year or less</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>2 Years or less</td>
<td>7 (78%)</td>
</tr>
</tbody>
</table>

| Less than 20 employees                  | 7 (78%) |
On May 2, 2020, a miner entered a sand and gravel bin through a lower access hatch to clear an obstruction. The miner was clearing the blockage with a bar when the material inside the bin fell and engulfed him.
Mine Fatality
#8 - 2020

On June 1, 2020, a contract truck driver died after falling from the top of his trailer. The victim received first aid/CPR at the scene and passed away after being transported to a local hospital.
On June 13, 2020, the victim was operating a dragline to remove material from a pond. The dragline was found submerged in 25 feet of water. After two days, the dragline was extricated from the pond and the victim was located.
Fatality at NEPCO

On June 11, 2020, an accident occurred at NEPCO when a portion of the conveyor beltline, that was being dismantled, collapsed. Two workers were in the process of disconnecting the feed belt from a silo when the final section of the belt, which was connected to a silo, collapsed. The two workers were harnessed to the section of the belt that fell approximately 100 feet to the ground. One of the workers was fatally injured and the other was critically injured. After legal review, it was determined that this site was under OSHA jurisdiction.
Review of Slip & Fall Statistics & Prevention
Nonfatal Days Lost (NFDL) Injuries by Classification

2015 – Present

Top Five Classifications

- HANDLING OF MATERIALS: 35%
- SLIP OR FALL OF PERSON: 26%
- POWERED HAULAGE: 9%
- HANDTOOLS (NONPOWERED): 9%
- MACHINERY: 9%

Number of Injuries

0 1000 2000 3000 4000 5000 6000 7000 8000

11
Slip or Fall NFDL Injuries by Type

2015 – Present

- Over-exertion NEC (Slips and Trips): 35%
- Fall to the walkway or working surface: 28%
- Fall from machine: 14%
- Fall onto or against objects: 11%
- Fall from ladders: 3%
- Fall down stairs: 2%
- Other 18 Injury Types: 7%

NEC = Not Elsewhere Classified
Falling from elevation makes up over 62% of these injuries. Elevated work areas can include
1. Bins and hoppers.
2. Stairs and ladders.
3. Scaffolds, walkways, platforms, and machinery.
Slip or Fall NFDL Injuries by Activity

2015 – Present

- Walking, Running: 37%
- Getting on or off equipment: 26%
- Handling supplies or material: 12%
- Machine maintenance: 9%
- Climbing scaffolds, Ladders: 4%
- Examining equipment or mine: 2%
- Other 63 Activities: 10%

Number of Injuries

0 500 1000 1500 2000 2500
### Slip or Fall Fatalities by Year

2015 – Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Slip or Fall of Person Fatalities</th>
<th>Total Fatalities</th>
<th>Percentage of Total Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2</td>
<td>29</td>
<td>6.9%</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
<td>25</td>
<td>8.0%</td>
</tr>
<tr>
<td>2017</td>
<td>1</td>
<td>28</td>
<td>3.6%</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
<td>29</td>
<td>0.0%</td>
</tr>
<tr>
<td>2019</td>
<td>4</td>
<td>28</td>
<td>14.3%</td>
</tr>
<tr>
<td>2020 (YTD)</td>
<td>3</td>
<td>9</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
Slip or Fall Fatalities

The causes of these 12 fatalities can be categorized into 4 groups:
1. Ingress and egress from mobile equipment
2. Tying off when working from elevated surfaces
3. Safe access on platforms and around shafts
4. Falling from truck trailers
Fall Prevention: Ingress and Egress

1. Always use the "Three Points of Contact" method. Use either two hands and one foot, or one hand and two feet when getting on and off equipment.
2. Always face equipment when mounting or dismounting it.
3. Keep hands free of any objects. Use hoisting materials to transport tools and other objects that may keep hands from using three points of contact.
4. Maintain traction by ensuring hands and footwear are free of potential hazards such as dirt, oil, and grease. Slip resistant material can be coated to existing foot holds and handrails.
5. Ensure steps and handrails are properly secured and free of defects and debris.
Fall Prevention: Tying Off

1. Provide appropriate fall protection devices such as lanyards and harnesses.
2. Train miners to recognize fall hazards and properly use fall protection devices.
3. Examine fall protection equipment for defects or degradation before use.
4. Always stay connected/tie off. Always attach the lanyard of the approved fall protection device to the designated attachment point.
5. When working in bins, silos, hoppers, and tanks ensure persons are properly tied-off, with one line tender per person.
Fall Prevention: Safe Access

1. Have properly designed gates, safety chains, handrails, guards, and ensure covers are securely in place at openings through which persons may fall.

2. Examine work areas for all potential hazards including places that persons may fall from or through. Report hazards that you cannot immediately correct to management.

3. Ensure that areas are barricaded or have warning signs posted at all approaches if hazards exist that are not immediately obvious.

4. Reinstall access covers after traveling or bringing items through an opening.
Fall Prevention: Truck Trailers

1. Train everyone to recognize fall hazards and ensure that safe work procedures are discussed and established.
2. Include safe truck tarping requirements in site-specific hazard training.
3. Provide truck tarping safe access facilities where needed.
4. Provide an effective fall arrest secure anchorage system. Ensure that people wear and attach fall protection connecting devices where there is a danger of falling.
5. Use automatic tarp deploying systems to prevent people from working from heights.
Mine Operator Responsibilities

1. Provide safe access for elevated work areas.
2. Provide fall protection equipment.
3. Implement fall prevention measures.
4. Train miners to
   A. Recognize fall hazards.
   B. Evaluate the risks associated with each hazard.
   C. Control fall hazards through preventative or protective measures.
Review of Enforcement
Safety Alert

Recent Increase in Fall of Person Accidents

28 miners have died after falling from heights over the last 10 years.

Deaths from falls have increased from 8% to 19% of mining fatalities in the last two years.

- Working without fall protection on top of trucks, in aerial lift baskets, and while accessing and egressing other mobile equipment
- While performing maintenance on crushers, screens, conveyors, and other milling equipment

MSHA issued 92 imminent danger orders for people working at heights without fall protection between January 2019 and June 2020. The most common violations were truck drivers climbing atop their vehicles, and maintenance and quarry personnel climbing to or working without fall protection in high places. Supervisors have been ordered down from dangerous locations.
Review of Educational Policy and Development
Resource Links for
Mine Operators
Contractors
Trainers
Safety & Health Materials

MSHA offers a wide variety of mine safety and health materials to assist trainers and
miners in promoting a safe and healthy environment at U.S. mines. We are
always looking for new material to share with the mining community. Please contact us
at mshalearning@dot.gov if you have any materials to share, or if you have any questions
or suggestions regarding the safety and health materials on our website.

Small Mine Guide
A compliance assistance tool for small mine operators covering health and safety
programs, training plan development, reporting practices, and more.

Searchable Database
Find safety and health manuals, hazard alerts, presentations and compliance guides
organized by mine type and hazard.

Training Videos
A collection of videos covering health, safety and other mining-related topics.

ToolBox Talks
A series of discussion topics that can be used by small mine operators and others to hold
safety and health discussions for their employees at their mining operations.

Fatality Reports
Mining fatality summaries with associated best practices to help prevent similar incidents.

Task Training
Concise guidelines for effective task training.

Health and Safety Alerts
Information on current and previous health, safety and equipment hazard alerts.

MSHA Handbook Series
A variety of handbooks describing inspection procedures, education & training
procedures and technical support procedures.

NIOSH Training Page
Education and training resources from the National Institute for Occupational Safety and
Health.

Industry Shared Safety Material
This section contains material submitted to MSHA by the mining industry that has shown
to be effective in reducing accidents and injuries. Please feel free to use any of this
material to help prevent accidents and injuries at your mine or facility site.

Industry and MSHA Partnership Safety Material
This section contains material produced as a result of a partnership between MSHA and
the mining industry. These partnerships are part of MSHA's on-going outreach efforts to
provide compliance assistance to mining operations.

Instructor Materials
Instructor materials and reference guides for MSHA approved instructors and competent
persons.

https://www.msha.gov/training-
education/safety-health-
materials
MSHA Fatal Alerts

Fall from top of truck trailer

Fall from top of bulk trailer

Fall into portable load out bin
https://www.msha.gov/data-reports/fatality-reports/2020/january-8-2020-fatality/fatality-alert

Fall 40 feet down a shaft

Ejected from a man-lift basket

Fall 12 feet because lost balance

Fall 19 feet through a 27 inch opening
MSHA Serious Accident Alerts

Current Fall Protection Safety Alert

Fall 20 feet during installation of building roof
https://www.msha.gov/mnm-serious-accident-alert-surface-gold

Fall 10 feet from cone crusher

Fall 15 feet from mine basket/electric shovel

Fall 7.5 feet from jaw crusher platform
https://www.msha.gov/mnm-serious-accident-alert-surface-maintenance-0

Fall 12 feet down a step ladder

Fall from a conveyor galley

Lost footing and fell
Training Videos

MSHA Shared Industry Training Material/Slapping and Tripping Ohio Aggregate and Industrial Mineral Association (Video)
https://www.youtube.com/watch?v=07x5uklonQs&feature=youtu.be

MSHA Training Video - Fall Protection
https://www.msha.gov/msha-training-videos

Personal Fall Arrest Equipment Task Training Guide for MNM

Ladder Safety Guide
https://www.msha.gov/ladder-safety-standards
NIOSH
FALLS IN THE WORKPLACE

https://www.cdc.gov/niosh/topics/falls/default.html
FALLS IN THE WORKPLACE

Aerial Lifts

Aerial lifts are powered and mobile platforms that are used for elevating workers to various heights, which exposes workers to fall hazards.

Training is necessary for anyone using aerial work platforms and equipment. In an effort to create awareness about common workplace hazards when using aerial lifts, NIOSH has developed educational tools and products. Employers, trainers, safety and health professionals, and aerial lift operators can use the following information to prevent work-related falls.

Note: NIOSH uses the term ‘aerial lifts’ as an overarching term to capture multiple types of lifts, such as scissor lifts and boom lifts. It is important to note that both OSHA and ANSI standards vary for different types of lifts.

Spotlight

NIOSH Aerial Lift Hazard Recognition Simulator

This free simulator provides realistic workplaces with multiple dangerous hazard types that scissor and boom lift operators can navigate from the safety of a computer. Experienced operators can use the simulator to refresh their knowledge, and new operators can familiarize themselves with hazards they may encounter on the job. Using the simulator is not a substitute for required training to operate aerial and boom lifts.

Use the NIOSH Aerial Lift Hazard Recognition Simulator today! See ‘Tools’ below for instructions to launch the Simulator from your computer.
SERVICES, TRAINING, AND SUPPORT PROGRAMS FOR MSHA DISTRICTS

- Training Program Reviews
- Regulatory Assistance:
  - Mine Operators
  - Independent Contractors
- Training Record Reviews
- Instructor Development and Evaluations
- Part 46 Training Plan Reviews
- Part 48 Training Plan and Instructor Reviews for Approval
- Development and Improvement of Training Materials
- Training Plan Development
- Part 50 Training/Audits

- Instructor Classes and Workshops
  “The following programs are designed to strengthen and modernize the skills of the mining industry’s trainers, instructors, and competent persons to ensure quality and effective training.”
  - Train the Trainer (T3)
    Part 48 Three Day Instructor Workshop
  - Train the Trainer for Competent Persons (T3CP)
    Part 46 One or Three day Competent Person Workshops
  - Retrain the Trainer (RT3)
- Accident Investigations
  - Part 46/48 Reviews

- Supervisory Responsibility Training
- Professional Miner Recognition Program
- Qualification and Certification Classes
  - CPDM/Gravimetric/Maintenance and Calibration
  - O₂/CH₄
  - Impoundment
- Explosion Gallery
- Workplace Exam Training
- Electrical Trailer Demonstrations
- Hazard Recognition Training
- Mine Emergency Training
EFSMS Training Class

“Contractor Responsibilities on Mine Property”
Educational Field and Small Mine Services

EFSMS Web Page
https://arlweb.msha.gov/epd/efsms/

MSHA Training Questions Email Site
mshatraining@dol.gov

Syed Hafeez
Director EPD/PEIR
Hafeez.syed@dol.gov
202-693-9765

Kevin Deel
Manager EFSMS
Deel.kevin@dol.gov
202-693-9585
Review of MSHA Website & MDRS
Updates to MSHA Website

Current DOL OneWeb Initiative will be upgrading the MSHA’s web presence.

What this means to you:
• Enhanced interface – easier to find data and materials (in process)
• The Fatality Report search page recently combined Coal and Metal and Non Metal (completed)
• Enhanced mobile experience
MSHA.gov Home Page (Future)
Fatality Report Search Page Change

February 10, 2020 Fatality

Accident Classification: Powered Haulage
- Location: Brush Valley, Indiana Pennsylvania
- Mine Controller: J Clifford Forest III
- Mine Type: Underground
- Mined Material: Coal (Bituminous)

[Links: Preliminary Report, Fatality Alert, Public Notice]

January 23, 2020 Fatality

Accident Classification: Slip or Fall of Person
- Location: Tehachapi Plant, Kern, California
- Mine Controller: Heidelberg Cement AG
- Mine Type: Facility
- Mined Material: Cement

MDRS
Tips and Tricks
MDRS Landing Page

**STEP 1:**
Select type of search

**STEP 2:**
Enter search parameter and when box appears, click on it

**STEP 3:**
Select SUBMIT
## Mine Information Report

### Mine Information

<table>
<thead>
<tr>
<th>Mine Information</th>
<th>Operator History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine ID</td>
<td>Operator</td>
</tr>
<tr>
<td>Mine Name</td>
<td>Begin Date</td>
</tr>
<tr>
<td>Mine Status</td>
<td>U.S. Department of Energy</td>
</tr>
<tr>
<td>Mine Status Date</td>
<td>06/01/1981</td>
</tr>
<tr>
<td>Operator</td>
<td>End Date</td>
</tr>
<tr>
<td>Opr. Begin Date</td>
<td>Current -</td>
</tr>
<tr>
<td>Current Controller</td>
<td>United States Government</td>
</tr>
<tr>
<td>Controller Start Date</td>
<td>1/1/1950</td>
</tr>
<tr>
<td>Mined Material</td>
<td>Location</td>
</tr>
<tr>
<td>Type of Mine</td>
<td>Eddy, NEW MEXICO</td>
</tr>
<tr>
<td>Location</td>
<td>Address of Record</td>
</tr>
<tr>
<td>Address of Record</td>
<td>370 Louis Whillock Road CARLSBAD NM 88220</td>
</tr>
</tbody>
</table>

### Related Reports Links

<table>
<thead>
<tr>
<th>Related Reports Links</th>
<th>Report Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>Report provides a glimpse of mine specific data on mines throughout the US. The Overview contains information related to accidents, fatalities, work hours and provides incident rates for on a calendar year basis.</td>
</tr>
<tr>
<td>Inspections</td>
<td>This report is based on Mine ID and Inspection Begin Date. The report provides inspection specific data to include: Event Numbers, Contractor ID, Date, type and number of violations issued, as well as inspection activity code.</td>
</tr>
<tr>
<td>Accidents</td>
<td>Using attributes from the Accidents Table this report provides users with Accident specific information to include: Mine ID, Contractor ID, Date, Worker’s experience and occupation, and a narrative of the incident.</td>
</tr>
<tr>
<td>Violations</td>
<td>Report provides data on MSHA Violations to include: Mine ID, Violator Type, Contractor ID, Date, Citation Number, Final Order Date, Section and The Act and The Termination.</td>
</tr>
<tr>
<td>Health Samples</td>
<td>Report provide specific information for health samples that includes, date, location, job, contamination code and concentration PELS, etc.</td>
</tr>
</tbody>
</table>

**TIP:** For printing change page setting to landscape
MDRS Text Search Tips

1. Search using MOST UNIQUE WORD in the name:

   ![Mine Name: pinnacle](image)

2. If no unique mine then use special characters:
   1. Underscore “_” \(\Rightarrow\) Tells MDRS to look for spaces between words

   ![Mine Name: gateway_eagle_mine](image)

   ![Mine Name: or](image)

2. AND or “&” \(\Rightarrow\) Tells MDRS to only return items with all words in search

   ![Mine Name: Eagle&Gateway](image)

   ![Mine Name: or](image)
Select date range based on when inspection began.

To print, select Print button.

To export, select PDF or Excel here.

Click on Event No. for additional details on the inspection.

After clicking on Event No., you may now view relevant event information.
<table>
<thead>
<tr>
<th>TOPIC</th>
<th>LINK</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do I see what data/reports are available for a Mine?</td>
<td><a href="https://www.youtube.com/watch?v=YMJZBcBwGkM&amp;feature=youtu.be">https://www.youtube.com/watch?v=YMJZBcBwGkM&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I search for multiple Mines at the same time?</td>
<td><a href="https://www.youtube.com/watch?v=SzvWh4GKnYa&amp;feature=youtu.be">https://www.youtube.com/watch?v=SzvWh4GKnYa&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I look up injury rates for a Mine?</td>
<td><a href="https://www.youtube.com/watch?v=hUNntpnn_70&amp;feature=youtu.be">https://www.youtube.com/watch?v=hUNntpnn_70&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I find violation history for a Mine?</td>
<td><a href="https://www.youtube.com/watch?v=LOyhazMhga4&amp;feature=youtu.be">https://www.youtube.com/watch?v=LOyhazMhga4&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I find quarterly employment/production numbers for a Mine?</td>
<td><a href="https://www.youtube.com/watch?v=eml-omp0uA&amp;feature=youtu.be">https://www.youtube.com/watch?v=eml-omp0uA&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I look up Mine ID number(s) for a Contractor?</td>
<td><a href="https://www.youtube.com/watch?v=2n7qVOgCPOA&amp;feature=youtu.be">https://www.youtube.com/watch?v=2n7qVOgCPOA&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I search for a Contractor if I don’t know the Contractor ID?</td>
<td><a href="https://www.youtube.com/watch?v=AvrjNiPDGhw&amp;feature=youtu.be">https://www.youtube.com/watch?v=AvrjNiPDGhw&amp;feature=youtu.be</a></td>
</tr>
<tr>
<td>How do I export or print?</td>
<td><a href="https://www.youtube.com/watch?v=49N0bgaZVcc&amp;feature=youtu.be">https://www.youtube.com/watch?v=49N0bgaZVcc&amp;feature=youtu.be</a></td>
</tr>
</tbody>
</table>
MSHA Data Contacts

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(202) 693-9636
Review of DOL & MSHA COVID-19 Update
COVID-19 Incidence Rates for Top 10 Underground Mining States by Number of Underground Miners

As of June 29, 2020, 12:15pm
COVID-19 Incidence Rates for Top 10 Mining States by Number of Miners

As of June 29, 2020, 12:15pm
NOTES:
1. COVID-19 data was obtained from the Johns Hopkins University of Medicine’s Corona Virus Resource Center, https://coronavirus.jhu.edu/. Accessed on Jun 30, 2020; testing data was current as of June 29, 2020 12.15pm.
3. Mining employment data were obtained from mine operator filings of MSHA 7000-2 Quarterly Mine Employment and Coal Production Report for activity during CY2020 Q1.
   a. The top 10 underground mining states by number of underground miners listed in figure 1 are presented in order of most to least miners.
   b. The top 10 mining states by number miners listed in figure 2 are presented in order of most to least miners.
4. Metro Statistical Areas (MSA) referenced in Table 1 include the following counties:
   b. Chicago – Cook, DuPage, DeKalb, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will.
   c. Virginia – Alexandria (city), Arlington, Falls Church (city), Fairfax, Fairfax (city), Loudoun, Manassas (city), and Prince William.
Questions?
Closing Remarks