May 9, 2018

2018 New Mexico Mine Health & Safety Conf.
MSHA: 2017 in Review and a Look Ahead

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Mine Safety and Health Administration
The MSHA Mission

“to prevent death, illness, and injury from mining and promote safe and healthful workplaces for U.S. miners”
A Shared Objective

Safety is:

• Efficiency
• Profitability
• The right thing to do

President Trump and Secretary of Labor Acosta are committed to mine safety and health. Let’s work together to reach the next level.
MSHA’s Tools

• Fair and Consistent Enforcement - mandated inspections (2s and 4s) are core responsibility
• Education and Training
• Compliance and Technical Assistance
• Technological Innovation – working with operators, manufacturers and NIOSH
# MSHA Highlights for 2017

<table>
<thead>
<tr>
<th></th>
<th>Nation</th>
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<tbody>
<tr>
<td># of Mines Reporting Employment</td>
<td>13,075</td>
</tr>
<tr>
<td>- Coal Mines Only</td>
<td>1,214</td>
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<tr>
<td>- Metal/Nonmetal Mines Only</td>
<td>11,861</td>
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<tr>
<td>Total Employment*</td>
<td>320,882</td>
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<tr>
<td>MSHA Inspections Completed</td>
<td>38,970</td>
</tr>
<tr>
<td>Citations &amp; Orders Issued</td>
<td>104,935</td>
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<tr>
<td>Proposed Dollars Assessed (Millions)</td>
<td>$53.08</td>
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U.S. MINING FATALITIES  COAL and METAL/NONMETAL  2008-2018

Data as of April 24, 2018.

2017 – Record low MNM fatalities

MNM Fatalities  Coal Fatalities
MINING REPORTABLE INJURY RATES 2008-2017

*The all injury rate represents the number of reportable injuries per 200,000 exposure hours.

NOTE: State employment data reflects operator employment only (contractors do not report employment by state). Therefore, state data only includes operators, while National data includes both operators and contractors.

Data as of April 30, 2018.
Powered Haulage Safety Initiative

- Powered Haulage = 50% of fatalities in 2017; 57% of fatalities so far in 2018
- New MSHA initiative to reduce powered haulage accidents
- Outreach, training, collaboration with operators and miners, RFI
- Three target areas (initially): Large vehicles/blind spots; seatbelt usage; conveyor belt safety
Powered Haulage: Large Vehicles

2017 Nationwide: 4 fatalities from large vehicles hitting smaller vehicles
Since 2003: 23 such fatalities – Unacceptable!

Proximity Detection for surface mines?
Powered Haulage: Seat Belt Safety

• Three fatalities in 2017, and 35 fatalities since 2007, involved miners not wearing seat belts

• Seatbelt usage required in most cases under MSHA regulations

• 6000+ MSHA citations issued for failure to wear seatbelts since 2007 (most in MNM mines)
Powered Haulage: Conveyor Belts

• Five miners killed working around conveyor belts since January 2017: four in coal, one in MNM

• Guarding, lock-out tag-out, properly using crossovers, all essential for safety
Rulemaking Update

- Workplace exams for Metal and Nonmetal issued, effective June 2
- Diesel exhaust
- Proximity detection rule took effect March 16, 95% compliance to date
- Retrospective review of dust rule
- Silica and dust standards
Average Dust Concentration in Underground Coal Mines, by MSHA and Operator Samples

**Average Dust Concentration – mg/m³**

**Calendar Year**

- **2009**: 0.82
- **2010**: 0.80
- **2011**: 0.77
- **2012**: 0.74
- **2013**: 0.73
- **2014**: 0.73
- **2015**: 0.71
- **2016**: 0.70
- **2017**: 0.69

- **Operator Avg. Conc.**
- **MSHA Avg. Conc.**
Compliance in Penalties and Fines

- 75%-85% of penalties are paid
- Small share of operators are chronically delinquent w/ poor safety records
- More aggressive posture is being implemented
- Already seeing results

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<thead>
<tr>
<th>Time Frame</th>
<th>Amount</th>
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<tbody>
<tr>
<td>1-30 days</td>
<td>$1,345,186.33</td>
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<td>31-60 days</td>
<td>$1,083,064.83</td>
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<td>61-90 days</td>
<td>$747,559.21</td>
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<td>91-120 days</td>
<td>$1,174,789.11</td>
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<td>121-150 days</td>
<td>$616,739.37</td>
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<td>151-180 days</td>
<td>$337,300.94</td>
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<td>181-365 days</td>
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<td>1-2 years</td>
<td>$4,066,565.78</td>
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<td>2-yr Subtotal</td>
<td>$12,769,636.56</td>
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<td>2-6 years</td>
<td>$24,192,828.54</td>
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<td>6-10 years</td>
<td>$22,023,095.79</td>
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<td>10+ years</td>
<td>$7,702,966.33</td>
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<td>Grand Total</td>
<td>$66,688,527.22</td>
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Questions?