2014 MSHA COAL UPDATE

Alabama Mining Institute
September 10, 2014
District 11 recently added an additional six states and 35 mines to its area of responsibility. Active coal/lignite mining operations are found in Alabama, Arkansas, Kansas, Louisiana, Oklahoma, Texas, Missouri, and Mississippi.

The District currently has a total of 140 active/producing entities; 14 of these are underground and 118 are surface mines/facilities.

In FY 2013, coal production in District 11 mines was a total of 71,156,570 tons.

Surface mines accounted for 59,378,941 tons and underground mines for 11,777,629 tons in FY 2013.

So far in FY 2014, there has been a total production of 48,555,105 tons of coal.

The coal industry in District 11 employs 7477 miners – 4339 at surface mines and 3138 at underground mines for 18,703,040 employee hours annually.
## COAL DAILY FATALITY REPORT - September 8, 2014

### Fatalities Chargeable to the Coal Mining Industry

<table>
<thead>
<tr>
<th>Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical</strong></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td><strong>Exp Vessels under Pressure</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td><strong>Exp &amp; Breaking Agents</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Fall/Slide Material</strong></td>
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<td>0</td>
<td>0</td>
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<tr>
<td><strong>Fall of Face/rib/highwall</strong></td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Fall of Roof or Back</strong></td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Fire</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Handling Material</strong></td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td><strong>Hand Tools</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Nonpowered Haulage</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Powered Haulage</strong></td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
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<tr>
<td><strong>Hoisting</strong></td>
<td>3</td>
<td>1</td>
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<td>0</td>
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<tr>
<td><strong>Ignition/Explosion of Gas/Dust</strong></td>
<td>29</td>
<td>1</td>
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<tr>
<td><strong>Inundation</strong></td>
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<td><strong>Machinery</strong></td>
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<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td><strong>Slip/Fall of Person</strong></td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Step/Kneel on Object</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Striking or Bumping</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Year to Date Totals</strong></td>
<td>39</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>8</td>
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<tr>
<td><strong>Combined Year to Date Totals</strong></td>
<td>44</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>9</td>
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<tr>
<td><strong>End of Year Total</strong></td>
<td>48</td>
<td>21</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

### Nonchargeable Fatalities

<table>
<thead>
<tr>
<th>Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Causes</strong></td>
<td>11</td>
<td>16</td>
<td>11</td>
<td>10</td>
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<td><strong>Homicide/Suicide</strong></td>
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<td><strong>Trespasser</strong></td>
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<td>1</td>
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<td>0</td>
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<tr>
<td><strong>Pending Determination</strong></td>
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<td>2</td>
<td>5</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Year to Date Totals</strong></td>
<td>15</td>
<td>21</td>
<td>17</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td><strong>End of Year Totals</strong></td>
<td>18</td>
<td>30</td>
<td>21</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>
2014 Coal Fatalities

Nine deaths in coal mining in 2014.

Four miners were killed in Machinery accidents: A 24-year-old continuous mining machine operator, a 41-year-old mechanic trainee, a 25-year-old roof bolter operator, and a 25-year-old contract equipment operator.

Two miners were killed in Powered Haulage accidents: A 20-year-old general inside laborer and 58-year-old truck driver.

Two miners were killed in a Fall of Rib (coal outburst) accident: A 48-year-old continuous mining machine operator, and a 46-year-old mobile roof support operator/roof bolter.

One miner was killed in an Electrical accident: A 41-year-old maintenance supervisor with approximately 19 years of mining experience was killed when he came in contact with an energized component inside an explosion proof enclosure.
COAL MINE FATALITY – On Wednesday, June 4, 2014, a 25-year-old contract equipment operator with 24 weeks of experience was killed when he was crushed between the hood and frame of an impact crusher. The victim had just finished clearing a large rock from the crusher area when the accident occurred.
Best Practices
• Establish policies and procedures for safely clearing plugged material in a feeder hopper or crusher.
• Consult and follow the manufacturer's recommended safe work procedures for conducting the task.
• Ensure that persons are task trained and understand the hazards associated with the work being performed.
• **De-energize and lock-out/tag-out all power sources before working on equipment.**
• Ensure moving parts on machinery are blocked against motion before beginning maintenance or repairs.
• Ensure that blocking material is competent, substantial, and adequate to support and stabilize the load.
• Maintain equipment in safe working condition. Ensure safety devices are working properly.
• Do not place yourself in a position that will expose you to hazards.
• Monitor all personnel, with an emphasis on miners new to a task, routinely to determine that safe work procedures are followed.
COAL MINE FATALITY – On Monday, June 23, 2014, at approximately 7:35 p.m., a 58–year-old truck driver, with 5 years of mining experience, was killed when the haul truck he was operating traveled through a berm and descended approximately 75 feet into a spoil “V.”
Best Practices

• Maintain control of equipment at all times during operation.
• Ensure seat belts are provided, maintained, and worn at all times when equipment is in operation. Incorporate engineering controls that require seat belts to be properly fastened before equipment can be put into motion.
• Conduct pre-operational checks to identify and fix any defects that may affect the safe operation of equipment before it is placed into service.
• Know the truck's capabilities, operating ranges, load limits and safety features.
• Provide and maintain adequate berms on the banks of roadways where a drop-off exists.
• Ensure all grades and haulage roads are appropriate for the haulage equipment being used.
• Train miners to understand the hazards associated with the work being performed.
• Monitor work habits routinely and examine work areas to ensure that safe work procedures are being followed.
What's New in MSHA

Final Rules
Respirable Dust

Proposed Rules
Part 100
Proximity Detection / Collision Warning

Annual Winter Rollout
MSHA’s Final Rule to Lower Miners’ Exposure to Respirable Coal Mine Dust

Issued: April 23, 2014

http://www.msha.gov/endblacklung
What This Rule Does

• The rule reduces miners’ exposure to dust by closing loopholes and improving sampling
  – Requires full shift sampling
  – Requires sampling on all shifts
  – Changes the method of averaging of miner’s samples that masked some miners exposure to dust levels above the citation value
  – Increases required production for valid sample from 50% to 80% to secure more representative samples

• Reduces standard from 2.0 mg/m3 to 1.5 mg/m3 where coal is mined and cuts dust exposure levels in half from 1.0 to 0.5 mg/m3 in intake entries and for miners with the disease
What This Rule Does (continued)

• Significantly increases sampling frequency
• Uses new cutting edge technology – continuous personal dust monitor (CPDM) – to provide real-time cumulative dust concentration readings
• Requires immediate corrective action when sample meets or exceeds the citation value instead of allowing miners to work in unhealthy dust for days or weeks before corrective actions are taken
• Requires quicker revision of dust control plan, implementing controls on a permanent basis
• Improves early warning of disease by expanding the medical surveillance program
• Improves operator sampling certification process - adds re-certification and decertification
Proposed Rule for Criteria and Procedures for Assessment of Civil Penalties

Issued: July 31, 2014

http://www.msha.gov/osrv/rules/2014/civil-penalty/
THE PROPOSED RULE

The proposed rule will to amend MSHA’s civil penalty regulation to simplify the criteria used in the proposed assessment of civil penalties.
The Federal Mine Safety and Health Act of 1977 established six criteria for determining civil penalties for violations of safety and health standards and regulations. The proposed rule would simplify those criteria and increase the relative weight of those criteria that reflect the seriousness of the operator's conduct: negligence, history of violations, and the severity aspect of gravity, as follows:
Operator's history of violations
Would increase the relative weight of violation history as a percentage of total penalty points, and revise the way violation history is determined to result in a more equitable impact of the Violations per Inspection Day formula on small metal/nonmetal mines.
Negligence of the operator
Would increase the relative weight of Negligence
and reduce its five descriptive categories to three.
Inspectors now choose from No Negligence, Low
Negligence, Moderate Negligence, High
Negligence, and Reckless Disregard. The new
categories would be Not Negligent, Negligent, and
Reckless Disregard.
Gravity of the violation
Would reduce the number of categories for the three aspects of Gravity - Likelihood of Occurrence, Severity of Injury or Illness, and Persons Affected - and increase the relative weight of Severity as a percentage of total penalty points.
THE PROPOSED RULE (continued)

Appropriateness of the penalty to the size of the business
Would reduce the relative weight of business size as a percentage of total penalty points.
Demonstrated good faith of the operator
MSHA seeks comment on providing an additional 20% good faith penalty reduction when the operator does not contest, promptly abates the violation and pays the penalty.
same.
Effect of the penalty on the operator's ability to continue in business
Currently MSHA presumes that the operator's ability to continue in business would not be affected by the assessment of a civil penalty, although the operator may submit information concerning its financial status. This provision would remain the same.
The existing minimum penalty of $112 and the maximum penalty of $70,000 for non-flagrant violations would be unchanged. However, minimum penalties for unwarrantable failure violations would increase to provide a greater deterrent for operators who allow these violations to occur.

MSHA analyzed the impact of the proposed rule by the type and size of mine using actual violation data from 2013. Under the proposal, total penalties proposed by MSHA and the distribution of the penalty amount by mine size would remain generally the same; however, the penalty amount for small M/NM mines would decrease.

In addition, MSHA seeks comment on three alternatives that would address the applicability of Part 100 when the Federal Mine Safety and Health Review Commission assesses civil penalties.

The comment period for the proposed rule is 60 days from the date of publication in the Federal Register.
Proposed Rule for Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines

Issued: August 31, 2011

THE PROPOSED RULE

The proposed rule will require underground coal mine operators to equip continuous mining machines (except full-face continuous mining machines) with proximity detection systems.
PROXIMITY DETECTION is a technology that uses electronic sensors to detect motion or the location of one object relative to another. Proximity detection systems can provide a warning and stop mobile machines before a pinning, crushing, or striking accident occurs that could result in injury or death to miners.
The proposed rule would require underground coal mine operators to:

- equip continuous mining machines (except full-face continuous mining machines) with proximity detection systems over an 18-month phase-in period
- would require that a proximity detection system cause a machine to stop no closer than three feet from a miner

  Except:
  - a miner who is in an on-board operator's compartment
  - a miner who is remotely operating a continuous mining machine while cutting coal or rock
The proposed rule would require that a proximity detection system:
• provide an audible or visual warning signal distinguishable from other signals, when the machine is five feet and closer to a miner
• Except:
  • a miner who is in an on-board operator's compartment
  • a miner who is remotely operating a continuous mining machine while cutting coal or rock
THE PROPOSED RULE (continued)

The proposed rule would require that a proximity detection system:

• a visual signal on the machine that indicates the system is functioning properly
• prevent movement of the machine if the system is not functioning properly
• be installed to prevent interference with or from other electrical systems
• be installed and maintained by a person trained in the installation and maintenance of the system
THE PROPOSED RULE (continued)

The proposed rule would require: that a proximity detection system:

• be visually checked at the beginning of a shift or before operating
• Be examined by qualified electrician at least every seven days
  • certified by dates times and initials
  • record results in a secure book or computer
NIOSH stated that the goal of a proximity detection system should be to prevent machine actions or situations that injure workers while not placing restrictions on how the workers do their jobs.
www.msha.gov
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