Coal Mine Respirable Dust Control Summit

December 6th 2016
Underground Coal Mines

Average Designated Occupation* Dust Concentration by Fiscal Year

Average Dust Concentration - mg/m³

Fiscal Year


*those occupations exposed to the highest levels of respirable coal mine dust (dustiest occupations)
Underground Coal Mines
MSHA Average Designated Occupation* Quartz Concentration
by Fiscal Year

Results in MRE Equivalent Concentrations

*those occupations exposed to the highest levels of respirable coal mine dust (dustiest occupations)
# Respirable Coal Mine Dust Samples Since Implementation (8/1/14 – 9/30/16)

<table>
<thead>
<tr>
<th></th>
<th>Total Samples Taken</th>
<th>Percent of Samples</th>
<th>Met or Exceeded Compliance Level</th>
<th>Less Than Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operator</strong></td>
<td>95,836</td>
<td>0.8</td>
<td></td>
<td>99.2</td>
</tr>
<tr>
<td><strong>MSHA</strong></td>
<td>58,061</td>
<td>0.5</td>
<td></td>
<td>99.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>153,897</td>
<td>0.7</td>
<td></td>
<td>99.3</td>
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</tbody>
</table>
New Dust Rule

Status of the Respirable Coal Dust Final Rule Implementation
Sampling results under the new respirable dust rule beginning August 1, 2014 and ending October 31, 2016, document **168,880 respirable dust samples** were collected by mine operators and MSHA and more than **99 percent** of those were in compliance with respirable dust standards. MSHA also saw the average respirable dust levels of the dustiest occupations (DO) for the same period **0.66 mg/m³**. The average respirable dust levels of the dustiest occupations (DO) for FY 2016 dropped to the lowest levels ever at **0.64 mg/m³**. The rule is achieving the intended results of lowering miners’ exposures to the unhealthy dust.

From August 1, 2016 through October 31, 2016 mine operators collected **54,029 CPDM** samples with over **99%** of them at or below compliance levels (99.8% or only 84 samples at or above ECV or noncompliant levels).
Retrospective Study

Under the Department’s Plan for Retrospective Analysis of Existing Rules, MSHA intends to consult with industry, labor, NIOSH, and other stakeholders to determine how these best practices can be replicated throughout mines to achieve similar results.
Retrospective Study

MSHA also intends to evaluate the data collected using CPDMs to determine whether:

(1) the 1.5 mg/m³ respirable dust standard should be lowered to protect miners’ health;
(2) the frequency of CPDM sampling should be increased;
(3) engineering controls and work practices used by mine operators achieve and maintain the required respirable coal mine dust levels; and
(4) samples taken on shifts longer than 8 hours should be converted to an 8-hour equivalent concentration to protect miners who work longer shifts.
Today’s Objective

• Present Controls and Practices which can maintain respirable dust exposure compliant
• Discuss how best to communicate so that success can be replicated