

## **Sampling and Compliance Overview**

### **MSHA's Final Rule to Lower Miners' Exposure to Respirable Coal Mine Dust**

The final rule substantially increases operator sampling for respirable coal mine dust and requires immediate corrective action when an operator's sample shows excessive concentrations. The frequency of sampling by MSHA inspectors does not change. The final rule authorizes MSHA to cite an operator based on a single MSHA sample showing excessive dust, rather than on an average of samples. Details follow, with descriptions of terms.

#### **Description of terms**

**Designated Occupation (DO)** – Occupations in an underground mine that are sampled because they are exposed to the highest concentrations of respirable dust, such as the operator of a continuous mining machine.

**Designated Area (DA)** – Areas in an underground mine that are sampled for specific reasons, such as the point where coal is loaded onto a conveyor belt.

**Other Designated Occupation (ODO)** – A new designation that begins 18 months after the effective date of the rule. These are additional occupations at underground mines set by the rule that are frequently exposed to high dust levels, such as the coal hauler or roof bolter operator.

**Designated Work Position (DWP)** – Positions at a surface coal mine or the surface area of an underground coal mine that are exposed to the highest concentrations of respirable dust, such as highwall drill operators and bulldozer operators.

**Part 90 miner** – A miner at an underground or surface coal mine who has evidence of coal workers pneumoconiosis.

**Normal production shift** – Now defined as at least 80% of the average production over the most recent 30 production shifts (or for all shifts if fewer than 30); previously defined as at least 50% of the average production over the prior 5 sampled shifts.

**Coal Mine Dust Personal Sampling Unit (CMDPSU)** – Also called a gravimetric sampler, this is the current device used to collect all respirable dust samples. Filters must be mailed to a lab for analysis, which can take several days.

**Continuous Personal Dust Monitor (CPDM)** – Newly developed monitoring device worn by a miner that provides real time display of cumulative dust levels.

#### **Sampling requirements:**

##### **Starting August 1, 2014**

- Samples must be taken during a normal production shift at the 80% level. Sampling now continues for the entire length of the shift worked, rather than stopping at eight hours.
- Only the CMDPSU may be used for sampling.
- For each DO, five valid samples must be obtained every two-month period.
- For each DA, one valid sample must be obtained every two months. If the sample finds an excessive concentration of dust, then five additional valid samples must be taken to determine compliance

- For each DWP, one valid sample must be obtained every quarter. If the sample finds an excessive concentration of dust, then five additional valid samples must be taken to determine compliance.
- For each Part 90 miner, five valid samples must be obtained every quarter.

### **Starting February 1, 2016**

The new Continuous Personal Dust Monitor (CPDM) must be used for sampling of DOs, ODOs, and Part 90 miners. CPDM use is optional for sampling of DAs and DWPs.

- For each DO and ODO, fifteen valid samples must be obtained every quarter.
- For each DA, five valid samples must be obtained every quarter.
- For each DWP, one valid sample must be obtained every quarter. If the sample finds an excessive concentration of dust, then five additional valid samples must be taken to determine compliance
- For each Part 90 miner, five valid samples must be obtained every quarter.

### **Starting August 1, 2016**

- Reduces the overall respirable dust standard in coal mines from 2.0 to 1.5 milligrams per cubic meter of air.
- Reduces the allowable standard for air used to ventilate places where miners work from 1.0 to 0.5 milligrams per cubic meter of air.
- Reduces the allowable standard for Part 90 miners from 1.0 to 0.5 milligrams per cubic meter of air.

### **Corrective action**

Whenever one sample indicates excessive levels of respirable dust, the mine operator must:

- Take immediate action to lower the concentration of respirable dust.
- Make respirators available to all affected miners.
- Record the corrective action in a secure book.
- Retain the records for one year and make them available for inspection by MSHA and miners' representatives.

### **Noncompliance**

Mine operators will be found in noncompliance when:

- A single, full-shift sample collected by MSHA shows excessive levels of respirable dust.
- Multiple samples collected by mine operators show excessive levels of respirable dust. Specifically, if a mine operator fails to take corrective action for any sample that finds excessive levels of dust, or if 2 out of 5 operator samples, or 3 out of 15 operator samples, or the average of all samples finds excessive levels of dust, a citation will be issued.

### **Termination of citation**

Upon receipt of a citation for excessive dust, the operator must make respirators available, take corrective action to lower the respirable dust levels, record the action in a secure book, and obtain five valid samples. If the five samples are at or below the standard, then

- For surface mines, MSHA will terminate the citation. Within 15 calendar days, the operator must submit a respirable dust control plan for MSHA District Manager approval.
- For underground mines, a revised ventilation plan incorporating the corrective actions must be submitted and approved by the MSHA District Manager before MSHA will terminate the citation.