MSHA: General Update

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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”
Coal - Number of Valid MSHA & Operator Respirable Dust Samples

CPDM required 2/1/16

1.5 mg/m³ standard in effect 8/1/16

* 2020 figure is a proration from 8/31/2020 count of 73,343
* Data as of 9/1/2020
Average DO* Dust Concentration in Underground Coal Mines, by MSHA and Operator Samples

* Designated occupations (DO) exposed to the highest levels of respirable coal mine dust.
Coal - MSHA & Operator Respirable Dust Samples

% > Standard

Calendar Year


9.08% 9.08% 7.98% 6.27% 7.29% 6.49% 7.29% 7.58% 6.49% 5.45% 4.68% 4.17% 3.90% 3.50% 3.06% 2.36% 1.65% 0.79% 0.88% 0.91% 0.82%

0.00% 1.00% 2.00% 3.00% 4.00% 5.00% 6.00% 7.00% 8.00% 9.00% 10.00%
Coal - Number of Valid MSHA Quartz Samples

* 2020 figure is a proration from 8/31/2020 count of 7,404
* Data as of 9/1/2020
UG Coal - MSHA Average Designated Occupation*

Quartz Concentration (µg/m³) by Calendar Year

* Designated occupations (DO) exposed to the highest levels of respirable coal mine dust.
Coal - MSHA Quartz Samples % >100 µg/m³
Black Lung Claims Paid

Source: https://www.dol.gov/owcp/dcmwc/
Trends in Pneumoconiosis Deaths — United States, 1999–2018

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Pneumoconioses are preventable occupational lung diseases caused by inhaling dust particles such as coal dust or different types of mineral dusts (1). To assess recent trends in deaths associated with pneumoconiosis, CDC analyzed multiple cause-of-death data* for decedents aged ≥15 years for the years 1999–2018, and industry and occupation data collected from 26 states$ for the years 1999, 2003, 2004, and 2007–2013. During 1999–2018, pneumoconiosis deaths decreased by 40.4%, with the exception of pneumoconiosis attributed to other inorganic dusts (e.g., aluminum, bauxite, beryllium, iron, and tin oxide), which increased significantly (p-value for time trend <0.05). The largest observed decreases in pneumoconiosis deaths were for those associated with coal workers’ pneumoconiosis (69.6%) and silicosis (53.0%). Asbestosis was the most frequently reported pneumoconiosis and was associated with working in the construction industry. The ongoing occurrence of deaths associated with pneumoconiosis underscores the importance of occupational dust exposure reduction, early case detection, and continued surveillance to monitor trends.

The CDC National Vital Statistics System’s multiple cause-of-death data for 1999–2018 were analyzed for decedents aged ≥15 years. For this analysis, decedents were identified using death certificates listing pneumoconiosis as the underlying or contributing cause of death and included deaths with the following International Classification of Diseases, Tenth Revision (ICD-10) codes: J60 (coal workers’ pneumoconiosis), J61 (pneumoconiosis due to asbestos and other mineral fibers, [asbestosis]), J62 (pneumoconiosis due to dust containing silica, [silicosis]), J63 (pneumoconiosis due to other inorganic dust [applies to berylliosis, a disease caused by exposure to beryllium; pulmonary siderosis, a disease most common in workers exposed to metal fumes during welding; and other diseases]), J64 (unspecified pneumoconiosis), J65 (pneumoconiosis associated with tuberculosis), and J66 (airway disease due to specific organic dust [applies to byssinosis, a disease caused by prolonged inhalation of textile fiber dust]).

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• Revision of dust rule is being worked on now
• Standards should be common, where applicable, between MNM and Coal
• PPE should be utilized (and credited) to drive further improvements
• Dust sampling should move to a “targeted” approach for operations with a poor history of compliance, example 103i
• Sampling frequency increase – MNM 5→4→3