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**Comments of the Association of Occupational and Environmental Clinics
U.S. Mine Safety and Health Administration
Lowering Miners' Exposure to Respirable Coal Mine Dust, Including Continuous
Personal Dust (RIN 1219-AB64)**

February 14, 2011

Thank you for the opportunity to review and comment on this proposed rule. On behalf of the Association of Occupational and Environmental Clinics (AOEC) we would like to thank the Mine Safety and Health Administration (MSHA) for your efforts. Begun in 1988, AOEC's 62 clinic members include many of the academic centers in the U.S. that train the physicians, nurses, toxicologists, industrial hygienists and other professionals in occupational and environmental health. AOEC members share a strong conviction that the challenges presented by occupational and environmental conditions must be met with a multi-disciplinary, public health approach of prevention. The AOEC is a network that includes both academic specialists and practicing clinicians, and represents a major source of education and communication in occupational and environmental health.

The Coal Mine Health and Safety Act of 1969 (Act) established the first U.S. national mandatory mine dust exposure limits and established MSHA with the authority to ensure compliance with the law. Congressional intent for the Act was clearly stated: "Congress declares that the first priority and concern of all in the coal mining industry must be the health and safety of its most precious resource--the miner; and the existence of unsafe and unhealthful conditions and practices in the Nation's coal mines is a serious impediment to the future growth of the coal industry and cannot be tolerated; operators of such mines have the primary responsibility to prevent the existence of such conditions."

It is now well recognized that exposure to respirable coal mine dusts causes coal workers' pneumoconiosis (CWP), silicosis, and occupationally-induced chronic obstructive pulmonary disease (COPD). We also know that effective control of this exposure can prevent these conditions. The Coal Mine Health and Safety Act was intended to eliminate severe and disabling occupational lung disease among U.S. underground coal miners.

Medical surveillance for miners was also established by the Act. During the first decades after the Act was passed coal miners in the surveillance program demonstrated a dramatic decline in the radiographic abnormalities consistent with pneumoconiosis. However, additional research since the passage of the Act has shown that the 1969 dust limit cannot fully eliminate pneumoconiosis.

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In 1995 the National Institute for Occupational Safety and Health (NIOSH) issued a Criteria Document which recommended that respirable dust exposures in coal mines be limited to a time-weighted full-shift average of 1 mg/m^3 . The Criteria Document also recommended that occupational exposures to respirable silica be limited to $50 \text{ }\mu\text{g/m}^3$. NIOSH recommended that medical surveillance for miners be expanded to include spirometry, symptom questionnaires, and occupational history information to assure the early recognition and control of all adverse respiratory health effects; research has shown that dust-related lung dysfunction occurs in the absence of pneumoconiosis on chest radiograph.

In 2010 NIOSH updated the information presented in the 1995 Criteria Document and concluded that after a long period of declining CWP prevalence, surveillance data indicate that the prevalence is rising. In addition, NIOSH found that coal miners are developing severe CWP at relatively young ages (<50 years), even though these miners have been employed all of their working lives in environmental conditions mandated by the 1969 Coal Mine Health and Safety Act. Research also has shown that miners at surface mines are also at risk of developing pneumoconiosis and COPD as a result of exposure to respirable coal mine dust, and since 1995 NIOSH has recommended including surface miners in medical surveillance.

NIOSH concluded that findings published since 1995 added further to the understanding of the respiratory health effects of coal mine dust described in the NIOSH Coal Criteria Document, and at the same time strengthen the conclusions and recommendations of that document.

AOEC strongly endorses the following sections of the proposed MSHA rulemaking RIN 1219-AB64:

1. Dust Standards (30 CFR Parts 70 and 71 Subparts B), where MSHA proposes the adoption of the current science-based NIOSH-recommended exposure limits monitored over an entire workshift of 1 mg/m^3 for respirable dust, and establishment of a separate limit for respirable silica. AOEC further supports the MSHA requirements that respirable dust levels be maintained at or below a safe level by a) measuring samples during each individual work shift, rather than the current strategy of averaging samples over multiple shifts, and b) requiring appropriate application of real-time continuous dust monitoring technologies that permit timely actions for controlling dust, and c) establishing a weekly permissible accumulated exposure limit to reduce the likelihood of excessive dust exposures among miners who work extended hours.
2. Medical Surveillance (30 CFR Part 72 Subpart B): The proposed rule would add spirometry, symptom questionnaires, and occupational histories to ongoing monitoring of respiratory health for all coal miners, at both surface and underground mines. AOEC agrees with MSHA that this testing be performed only by competent personnel using equipment and procedures approved by NIOSH, as is currently the practice in the Enhanced Coal Workers' Health Surveillance Program managed by NIOSH. Since exposure to coal dust causes COPD (including chronic bronchitis and emphysema) in addition to radiographic pneumoconiosis, medical surveillance of coal miners requires

inclusion of lung function testing (screening spirometry) and respiratory symptoms. AOEC also supports the extension of medical surveillance to coal miners at surface mines.

3. Silica: Current science clearly demonstrates important risks to workers exposed to the 100 µg/m³ respirable silica limit proposed in this announcement, and AOEC supports MSHA's intention, stated in the NPRM, to promulgate a PEL for silica that is more protective than the current rule.

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