

RIN 1219-AB36

Docket No. MSHA-2016-0013

October 25, 2019

The state of the science is clear: the current approach to regulating respirable dusts in coal mines fails to meet the Congressional intent in protecting coal mine workers from disease and death caused by inhalation of coal mine dusts.

What we know -

Disability and death from coal mine dust-related lung disease, although entirely preventable, is still afflicting Americans working in coal mining. In fact, there is an ongoing epidemic of the most severe forms of pneumoconiosis among people working in the United States coal industry that demands immediate action.

Although the mine dust samples submitted by the coal industry to demonstrate compliance with MSHA coal mine health regulations show industry average levels of respirable dust and crystalline silica continue to decline, the increasing disease severity, premature deaths, and lung pathology observed among contemporary U.S. coal miners clearly indicate that these compliance-focused dust samples cannot be reflecting the levels of dust that many miners are breathing at work. Additionally, there is no consistent and comprehensive information documenting the shorter term and peak levels of respirable silica to which workers are exposed. Shorter term exposure to high airborne silica has been associated with rapid lung disease progression, even when longer term average dust levels appear satisfactory.

Using health information from many different reliable sources, numerous scientific studies have confirmed that miners' lungs are showing increasing evidence of severe silicosis. Studies have analyzed workplace health monitoring programs, miner's health clinics and mobile vans, federal health administrative databases, national lung transplantation data, and national death indexes, and all are remarkably consistent in documenting the high prevalence and severe grades of dust diseases. Recently, sophisticated analyses of the dusts in coal miners' lung tissues, that were removed during surgery, lung transplantation, or autopsies, have also confirmed that the miners' lungs are increasingly being destroyed by crystalline silica particles.

Thus, an essential conclusion is that the current prevention strategies are not adequate to assure miners are provided a healthful working environment.

What needs to be done –

1. Full compliance with current MSHA exposure limits for respirable crystalline silica in coal mines does not prevent disease, disability, and death from occupational lung diseases. Thus, if the miners' protections are to be based upon the current state of medical science, the permissible level must be reduced to the 50 micrograms per cubic meter that OSHA mandates for general industry.

2. However, just lowering the PEL will not stem the current epidemic of coal mine dust disease. Measurement strategies must also be greatly enhanced, to better assure that both the measured and the reported dust levels adequately reflect the miners' actual working environments and disease risk. MSHA must more fully define and enforce standards of practice for mine managers and health and safety personnel, to assure that the culture and practice will move away from documenting minimal compliance with regulations, and move toward assuring all miners are constantly in a healthful working environment. This includes increasing and targeting air monitoring and especially documenting shorter term higher level exposures during activities that have the potential to disturb or generate respirable silica, such as drilling, slope mining, etc., irrespective of whether coal is being mined.
3. End of shift measurement of respirable silica appears to represent the current most feasible and useful tool for the timely identification and remediation of locations and processes with potential for generating unhealthful dust levels. As part of ongoing dust exposure prevention, assessment, and mitigation plans, MSHA should require training in, as well as regular application of these end of shift measurements, especially when potential for important silica exposure should be anticipated. Although current experience with end of shift silica measurement techniques may not be adequate for PEL enforcement purposes, as part of moving beyond a strictly numerical compliance mentality, dust control plans should be required to protect miner health utilizing the most up to date and feasible approaches and practices. Independent of the full shift samples submitted for compliance with the PEL, a failure to demonstrate continuous professionally credible efforts to identify, quantify, and control all potentially hazardous silica exposures, including failure to adequately follow defined best practices, (e.g., utilizing available professional tools such as end of shift measurements) should be sufficient for MSHA to enforce a health-related citation.
4. Especially in the continuously varying work environments of extractive mining, respiratory protective devices cannot be relied upon to achieve compliance with the essential reduction in silica exposure limits. However, with a meaningful management commitment to a dynamic and comprehensive respiratory protection program, such a program, combined with frequent targeted air monitoring and vigorous application of exposure controls, can help to reduce the likelihood of unhealthful exposures during well-defined short-term intermittent or abnormal mining conditions that have the potential to increase silica exposures. At a minimum, programs should include adequate documentation of exposure levels for activities and geologic conditions where respiratory protection is being considered, and implementation of a comprehensive, professionally designed and managed program that offers the protection of respirators without affecting worker safety, mobility, communication, or primary reliance on exposure controls.
5. Finally, because air measurements cannot be fully relied upon, coal miners must continue to be provided currently mandated levels of lung health testing, to provide a level of secondary prevention.

Respectfully submitted,

Edward L. Petsonk, MD

From: Edward Petsonk <petsonk@comcast.net>
Sent: Monday, October 28, 2019 1:16 PM
To: zzMSHA-Standards - Comments to Fed Reg Group
Subject: RFI silica RIN 1219-AB36 or Docket No. MSHA 2016-0013
Attachments: References.ELP comment MSHA RFI.docx; ELP.comment MSHA RFI.1a.docx

Please find attached the comments to be submitted. I tried on the web site but wasn't certain they had been accepted.

Thank you

Edward L. Petsonk, MD