



September 11, 2023

Mr. Chris Williamson
Assistant Secretary of Labor
Mine Safety and Health Administration
Submitted to: REGULATIONS.GOV

Docket No. MSHA-2023-0001
RIN: 1219-AB36

Dear Mr. Williamson:

On behalf of the American Public Health Association, a diverse community of public health professionals that champion the health of all people and communities, I write to provide comments on the proposed rule to address miners' exposure to respirable crystalline silica (88 *Federal Register* 44852). These comments were drafted in collaboration with members of the association's Occupational Health and Safety Section. We are encouraged that the Mine Safety and Health Administration has taken this important step to prevent silica-related exposures and disease. The following are our responses to some of the questions posed in the proposed regulation.

Questions 1-3 (Health Effects and Preliminary Risk Analysis)

We concur with MSHA's determination that miners' exposure to respirable crystalline silica presents a risk of material impairment of health or functional capacity. MSHA thoroughly describes the health risk which includes developing chronic silicosis, accelerated silicosis, progressive massive fibrosis, chronic obstructive pulmonary disease, lung cancer and kidney disease. We are pleased that rulemaking record includes the document "Effects of Occupational Exposure to Respirable Crystalline Silica on the Health of Miners: Review of the Health Effects Literature" (April 2023.) We note that it describes at least three dozen peer-reviewed papers published in just the last few years which demonstrate the substantial harm caused by exposure to respirable crystalline silica (e.g., first authors: Almberg, K.S.; Blackley, D.J.; Cohen, R.A.; Graber, J.M; Hall, N.B.; Halldin, C.N.; and Laney, A.S).

Questions 4-6 (Technological Feasibility, Preliminary Regulatory Analysis)

We concur with MSHA's determination that the proposed regulation is technologically and economically feasible. For all mining tasks and in all mining settings, methods to control respirable silica dust are available and effective. Many mine operators already use them as illustrated by MSHA's analysis of inspector samples in coal and MNM mines.

Question 9 (Scope)

We concur with the proposal to implement regulatory requirements to protect all mine workers (i.e., in the coal, metal, non-metal sectors) from respirable crystalline silica. It is also appropriate that the regulatory requirements address the risk at both underground and surface operations. Respirable crystalline silica is the hazard and all mine workers who are exposed should be protected from it.

Question 11 (Action Level)

We support MSHA's proposal to institute an action level of 25 $\mu\text{g}/\text{m}^3$. However, given the excess risk of harm at exposures between 25 $\mu\text{g}/\text{m}^3$ and the proposed PEL (50 $\mu\text{g}/\text{m}^3$) more should be required of operators when the action level is exceeded. Simply requiring operators to take additional air samples three years later (or more samples if overexposures to the action level continue) is inadequate to protect miners' health. Air sampling itself is not an intervention that will reduce miners' exposure to respirable crystalline silica. While those months pass-by, changes in mining operations may result in exposures to higher concentrations of respirable crystalline silica.

Exceeding the action level should serve as a warning and trigger an assessment of dust controls. If the source of the dust is not addressed (e.g., need for equipment maintenance, replacement of a worn part) exposures may exceed the PEL. When the action level is exceeded, mine operators should be required to keep a record of the steps taken to ensure the adequacy of dust controls. The objective is to prevent exposures from reaching or exceeding the PEL. Records of the operator's evaluation of dust controls when the action level is exceeded, will demonstrate a miner operator's good faith to prevent miners from being overexposed to silica dust.

Question 12 (Definition: Objective Data)

The proposed definition of "objective data" is inadequate. To eliminate uncertainty for mine operators, MSHA and NIOSH should develop a database of the specific industry-wide surveys or other evidence that meets the agency's criteria for "objective data." The database can be updated as new evidence is developed. Stakeholders should be permitted to contribute information to be considered by MSHA and/or NIOSH to add to the database of "objective data."

Question 13-14 (Permissible Exposure Limit)

We concur with MSHA's proposal to establish a permissible exposure limit of 50 $\mu\text{g}/\text{m}^3$. The agency's preliminary risk analysis strongly demonstrates the risk of material impairment of health or functional capacity at the current PEL. The data used by the agency in its PRA is the best available evidence from cohort studies, which have the benefit of exposure estimates and health effects data. Modeling analyses of this sort are typical in regulatory risk analysis, and this one is sufficient to demonstrate the risk. We note the strength of the other epidemiological evidence cited in MSHA's "Review of Health Effects Literature" (April 2023) which substantially adds to the weight of the evidence.

Question 15 (Job Rotation)

We concur with MSHA's proposed provision that rotation of miners not be considered an acceptable administration control.

Question 16 (Methods of Compliance)

a) We support MSHA's proposed requirement that mine operators install, use and maintain feasible engineering and administrative controls to keep miners' exposures to respirable crystalline silica below the proposed PEL. Evidence-based strategies exist to control respirable silica dust in all mining-related tasks and operations. For coal mines, many of these strategies are described in guides prepared by NIOSH's Division of Mining, including its compendium of feasible dust controls for surface and underground coal mines.¹ For metal and non-metal mines, NIOSH and the Industrial Minerals Association of North America developed a best practices handbook on dust controls. It contains hundreds of illustrations and photographs with feasible engineering controls to control miners' exposure to respirable dust.²

b) Section 60.13(a)(3) would be improved by including the following text which appears in the preamble at p. 44861: “[by] *the installation of proper ventilation systems, use of water sprays or wetting agents to suppress airborne contaminants, installation of machine-mounted dust collectors to capture respirable crystalline silica and other contaminants, and the installation of control booths or environmental cabs to enclose equipment operators.*”

c) Section 60.13 (Corrective action) would be further improved by stipulating the engineering and work practices that are required for certain types of equipment or tasks. At quarries, for example, drills with environmental cabs should be required to have a positive-pressure air-filtration system, HEPA filters, tight seals around windows, doors, etc., and all should be properly maintained. The rule could also stipulate practices or conditions that are prohibited, such as dry sweeping, using compressed air for housekeeping and accumulation of silica dust in enclosed areas. Failing to meet the required engineering and work practices would be a violation of the standard (i.e., no air monitoring sample would be required). MSHA could use the dust control handbooks prepared by NIOSH and industry to specify the required engineering and work practices for the most common sources of respirable crystalline silica.^{1,2}

Question 18 (Full-shift sampling)

a) We support MSHA's proposed requirement for exposure monitoring of a miner's exposure to respirable crystalline silica be measured over a full work shift and calculated over an 8-hour period.

b) Section 60.12(h) should include a requirement for the mine operator to provide a description or data to demonstrate the sample was taken “during typical mining activities” (as stipulated in proposed Section 60.12(f)).

c) For all sampling requirements, the person collecting the samples and recording the data should be required to certify in writing the accuracy of the records.

¹ NIOSH. (2021). Best Practices for Dust Control in Coal Mining, 2nd edition. Report No. IC-9532.

² NIOSH & Industrial Minerals Association of North America (2019). Dust Control Handbook for Industrial Minerals Mining and Processing, 2nd edition. Report No. RI-9701.

Question 26 (Semi-annual Evaluations (proposed 60.12(d)))

Under 30 CFR 56.5002 & 57.5002, MNM mine operators are already required to conduct exposure monitoring for respirable dust (and other contaminants) "...as frequently as necessary to determine the adequacy of control measures." This language should be integrated into 60.12(d) (or referenced) to emphasize that as mining conditions, equipment, production, or other changes occur, additional sampling may be needed.

Question 32-35 (Medical Surveillance)

- a) We support the proposed requirements for medical surveillance (i.e., history, physical exam, chest radiograph interpreted by a certified B-reader and a pulmonary function test performed by a NIOSH-certified technician) for MNM miners. The provision should be amended to include a requirement to test for latent tuberculosis; and for a low-dose CT scan (LDCT), if recommended by the examining clinician.
- b) Medical surveillance for MNM and coal miners should be performed by physicians who are board-certified in occupational medicine or pulmonary medicine, or at NIOSH-approved facilities.
- c) The medical surveillance provisions proposed for MNM miners (e.g., periodic medical exams) should also be extended to coal miners.
- d) The five-year frequency of medical exams is appropriate in many cases, however, it may not be sufficient for all miners, particularly those with early evidence of silica-related disease, decreased lung function or other impairment of health. The provision should be amended to allow for more frequent medical exams, if recommended by the physician or other licensed healthcare providers (PLHCP) or specialist.
- e) Recordkeeping for the medical surveillance program should include a requirement for the mine operator to maintain a copy of the information provided to the PLHCPs and specialists. This change would make the proposed regulation consistent with OSHA standards (e.g., silica (1926.1153(j)(3)(ii) and 1910.1053(k)(3)(ii)(C)); asbestos (1910.1001(m)(3)(ii)(D)) and 1926.1101(n)(3)(ii)(E)).
- f) Records required by the medical surveillance provisions should be maintained for the length of employment plus 30 years. This records retention requirement for medical records would be consistent with OSHA standards.
- g) In outreach to PLHCP and specialists, MSHA and NIOSH should include information about silicosis being a reportable disease in many states.

Question 36 (Medical Removal Protection)

- a) MNM miners should be provided medical removal protection (MRP) if they have evidence of silica-related health effects. The MRP should be equivalent to the transfer rights and exposure monitoring provided to coal miners under Part 90.
- b) The medical removal protection provisions of the rule should also refer mine operators to the illness reporting requirements under Part 50. An operator who receives notice that a miner is exercising their Part 90 rights is required to report it as an occupational illness which is defined

pursuant to 30 CFR Part 50.2(f) as “an illness or disease of a miner which may have resulted from work at a mine...”

Question 40 (Recordkeeping Requirements)

a) The proposed requirement for operators to maintain exposure monitoring (Section 60.12) records for two years is inadequate. Miners have a right-to-know and have access to data about exposure to respirable crystalline silica at their places of employment. This is particularly relevant given the cumulative effect and latency period of most silica-related diseases. The requirement should be consistent with the records retention requirement in OSHA’s silica standard (29 CFR 1910.1053(k)(1)(iii), referencing 29 CFR 1910.1020)).

b) All records required under the proposed rule should also be available to NIOSH. Section 60.16(b) should be amended to ensure that NIOSH also has access to operator records.

Question 41: (Training Requirements)

Mine operators should be required to integrate information into their Part 46 and Part 48 training programs on the health effects of respirable silica, the operators dust control measures, and medical surveillance, requirements of the standard, Part 90 and whistleblower protections.

We are unable to provide informed comments on the exposure monitoring provisions (Section 60.12) as they would apply to coal mines. We were unclear how these provisions align with or will be integrated into requirements under Part 70 and 71 (e.g., bimonthly and quarterly sampling, sampling of designated occupations and areas); the requirements for dust control plans; and how corrective action (60.13) would be integrated into dust control plans.

We appreciate the opportunity to provide comments on this proposed rule. We look forward to completion of this rulemaking and implementation of these much-needed health protections for U.S. miners.

Sincerely,



Georges C. Benjamin, MD
Executive Director