Comments of the AFL-CIO on the Mining Safety and Health Administration's Proposed Rule on Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection

MSHA-2023-0001
88 FR 44852

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The AFL-CIO is a federation of 60 national unions, representing 12.5 million working people in the United States, including those in coal, metal and nonmetal (MNM) mining, and those who do construction work on mining sites, working side-by-side millions of non-union workers.

This proposed respirable crystalline silica standard by the Mine Safety and Health Administration (MSHA) is long overdue. The Occupational Safety and Health Administration (OSHA) updated its protections against silica exposure in 2016 and because of this rule, in the last seven years alone, there have been significant reductions in silica dust exposures in general industry, construction and maritime. We strongly support this proposal as it will significantly reduce miners' exposures to silica dust and prevent hundreds of deaths and thousands of diseases among miners. However, several provisions of the proposal can and must be strengthened to ensure mine workers are protected from silica exposures to reduce their risk of disease and death.

The AFL-CIO recognizes and appreciates that MSHA is moving expeditiously to complete this rulemaking and to issue a final standard so that there are no further delays from protecting miners from unnecessary disease and death. There is a well established record that includes evidence of disease, exposures, and feasible control methods to reduce exposure to silica dust in mines that has been building for decades. MSHA's proposal has built upon OSHA's recent analysis in its final silica rule published in 2017, which was upheld by the U.S. Court of Appeals in 2017.

Our comments below will include our overarching comments and specific answers to many of the questions posed by MSHA in its proposal. Where appropriate, we also reference testimony provided to MSHA during its three public hearings. At the end of our comments, we include a list of documents that are submitted as attachments to our comments.

A STRONG MSHA SILICA STANDARD IS NEEDED TO PROTECT MINERS

Silica is a significant hazard in coal and metal/nonmetal mining.

The significant health risks due to occupational exposure to silica are well-recognized and understood. The nation has been long experiencing a crisis of lung disease associated with silica exposure in mine work. For decades, miners have been dying and becoming extremely ill from black lung and progressive massive fibrosis (PMF)—a chronic, irreversible disease caused by occupational silica exposure and coal dust exposure—and more recently there has been a resurgence of silicosis and other silica-related diseases among miners. Referenced in its proposed rule, MSHA's scientific review recognized the significant health effects of silicosis for miners, including increased risk of tuberculosis, other non-malignant respiratory diseases, lung cancer, renal disease and systemic auto-immune diseases.

MSHA recognized the prevalence of severe pneumoconiosis in *young* miners in their 30s and 40s—partially due to the increased power of machinery to produce higher dust exposures and the choice of some employers not to increase the control measures to reduce dust concentrations. This disturbing trend was first reported in 2016 by the National Public Radio, and the evidence has grown since then through additional reports.[1] We previously outlined this information in our comments to the agency's Request for Information in 2019.[2]

MSHA's Effects of Occupational Exposure to Respirable Crystalline Silica on the Health of Miners includes numerous studies on the health effects seen among coal and MNM miners, including PMF or "complicated silicosis" as recent as 2022. These findings were supported by occupational health physicians who diagnose and treat miners throughout MSHA's August 2023 public hearings. Dr. Drew Harris testified that there are more patients with progressive massive fibrosis now than in the Stone Mountain Black Lung Clinic's previous 32 years, including patients in their 40s. (Tr. 64-65, August 3, 2023).[3] Sam Petsonk, an attorney representing mine workers in safety and health and other worker rights' matters testified that he has represented miners in their 30s, 40s, and early 50s who have severe progressive massive fibrosis and silicosis, who have lost over a quarter of their lung capacity to rock dust. (Tr. 15, August 10, 2023).

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[1] Howard Burkes. National Public Radio. "Advanced Black Lung Cases Surge In Appalachia." December 15, 2016. Retrieved from: npr.org/2016/12/15/505577680/advanced-black-lung-cases-surge-in-appalachia.

[2] MSHA-2016-0013-0067.

[3] Citations in these comments noted as "Tr. X, DATE" refer to the transcript page numbers and the corresponding date from the transcripts of the public hearing conducted from August 10 to August 21, 2023, as posted on regulations.gov.

There is more information on the overexposures to silica and number of miners afflicted with silica-related health effects in the coal mining industry, due to the existing requirements for respirable dust monitoring, medical surveillance and centralized reporting, than in the MNM mining industry. Yet, even with more limited information, the evidence is clear that occupational exposure to silica in all types of mining must be reduced. Dr. Jeremy Hua testified on behalf of National Jewish Health that more than one quarter of the MNM workers that voluntarily participated in their screening program have been diagnosed with pneumoconiosis or a dust-related lung disease. (Tr. 102, August 21, 2023).

Additionally, trona mineral miner Marshal Cummings, representing the United Steelworkers, testified about his experiences being exposed to silica at his MNM mine:

> I was first notified that I was exposed to high levels of silica while working underground cleaning belt spillage on a scoop in 2011. I never heard a level of exposure, nor am I aware of any practice limiting exposures today. (Tr. 107, August 21, 2023)
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> After 11 years of working with the company and getting nowhere, as Chief Steward, I filed two grievances that are displayed on the PowerPoint now. This is the first one that is a grievance that stemmed from a study that the company put on, where employees working in the cold pressure are exposed to 150 micrograms per cubic meter of respirable silica. (Tr. 111, August 21, 2023)
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> The explosive environment is due to the lack of suppression and collection. There is not enough PPE in the world that will save any of us from an explosion that is a potential hazard. (Tr. 112, August 21, 2023)

The peer-reviewed risk assessments completed by MSHA have shown that workers in both coal and MNM mining sectors face a significant risk of harm from silica exposures at levels below the current MSHA standard, and even at the proposed 50 micrograms per cubic meter ($\mu g/m^3$).

MSHA's review determined that miners face an increased risk of death due to silica exposure—between 3.0 and 31.5 per 1,000 coal miners lifetime excess risk of mortality from silica-related health endpoints and between 2.6 and 27.9 per 1,000 MNM miners at the proposed PEL. The risks are even higher for silicosis morbidity with coal miners lifetime excess risk of morbidity between 46.2 and 54.2 per 1,000 miners and MNM miners lifetime excess risk of morbidity between 37.7 and 43.6 at the proposed PEL.[4]

[4] 88 FR 44900.

MSHA's Proposed Silica Standard is Long Overdue

Respirable silica dust has been a known occupational hazard for centuries and regulated in some workplaces for decades.[5,6] Most recently, OSHA issued a comprehensive silica standard for workplaces other than mining that sets a PEL of 50 µg/m^3 for an 8-hour time weighted average (TWA) and requires ancillary provisions.

At MSHA, silica has been regulated differently for coal and MNM mining. In MNM, the standard is based on a 1973 American Conference of Governmental Industrial Hygiene (ACGIH) Threshold Limit Value (TLV), and the standard was recodified in 1985. In coal mining, silica does not have its own standard, but is regulated within the respirable dust standard that requires a reduction of respirable dust when the concentration of quartz exceeds 100 µg/m^3. Recognizing the standard was woefully out of date, respirable silica dust has been on MSHA's regulatory agenda since Fall 2009 with plans for the agency to issue a notice of proposed rulemaking.[7] However, progress slowed as the agency waited on OSHA to finalize a regulation for general industry and construction. OSHA issued a final standard in 2016, yet progress at MSHA continued to stall. In 2019, the United Mine Workers of America and United Steelworkers jointly submitted a petition to MSHA calling for the agency to take action and three months later in August, MSHA published a request for information on respirable silica, continuing to gather information from employers, workers and the public.

Fourteen years after being placed on the regulatory agenda, MSHA sent a draft of the proposed rule to the Office of Management and Budget on January 18, 2023.[8] OMB released the proposed rule on June 29, 2023 and MSHA issued a press release and posted a pre-published version of the proposal on its website the following day.[9,10] On July 13, 2023 the NPRM was published in the Federal Register. In the month of August, MSHA held three all day public hearings across the country with access for the public to

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[5] Rosner, D and Markowitz, G (1991). *Deadly dust: Silicosis and the politics of occupational disease in twentieth century America.* (pp. 15-48). Princeton, NJ: Princeton University Press.
[6] 81 FR 16294-16298; 88 FR 44860-44862.
[7] Office of Information and Regulatory Affairs. DOL/MSHA. .Respirable Crystalline Silica Standard. RIN: 1219-AB36. Publication ID: Fall 2009. Retrieved from: reginfo.gov/public/do/eAgendaViewRule?pubId=200910&RIN=1219-AB36.
[8] Office of Information and Regulatory Affairs. Executive Order Reviews Completed between January 01, 2023 to August 31, 2023. Department of Labor. Retrieved from: reginfo.gov/public/do/eoHistReviewSearch.
[9] Office of Information and Regulatory Affairs. Executive Order Reviews Completed between January 01, 2023 to August 31, 2023. Department of Labor. Retrieved from: reginfo.gov/public/do/eoHistReviewSearch.
[10]U.S. Department of Labor. *US Department of Labor announces proposed rule to reduce silica dust exposure, better protect miners' health.* June 20, 2023. Retrieved from: msha.gov/news-media/general/2023/06/30/us-department-labor-announces-proposed-rule-reduce-silica-dust.

comment both in person and virtually. Individuals could sign up to speak in advance or sign up in person or virtually the day of each hearing, providing the agency valuable testimony from a variety of stakeholders.

The proposed MSHA standard, if fully implemented, is expected to prevent at least 799 deaths and 2,809 cases of silicosis among miners.[11] It is time for MSHA to move forward without delay to complete this rulemaking that will protect thousands of miners from unnecessary disease and death.

It is Technologically and Economically Feasible to Control Miners Exposures to Silica.

We strongly support MSHA using this information to determine that, where mine operators need to further reduce silica exposures, this can be done through properly maintaining existing controls or implementing new control measures readily available.[12] MSHA is required to use the best available evidence to set standards to assure that no miner will suffer material impairment of health or functional capacity from exposure to toxic materials or harmful physical agents of the miner's working life. MSHA has conducted extensive feasibility analysis of the proposed standard that documents that the proposed standard of 50 μg/m^3 is both technologically and economically feasible.

A significant amount of the research and studies on which the feasibility analysis is based was done by the National Institute of Occupational Safety and Health, who has decades of experience in conducting occupational exposure and control science. Additionally, MSHA has decades of experience through education, technical support and enforcement resulting in a deep understanding of the control measures available and already in use in different mining industries. This has created extensive documentation on the feasibility of engineering and administrative controls for silica in mining and their ability to reduce silica concentrations to below 50 μg/m^3.

These extensive dust control methods are also publicly available for mine operators to determine how to properly maintain the controls in place, and what additional control measures they need to implement. NIOSH's Dust Control Handbook for Industrial Minerals Mining and Processing, updated in 2019, provides the industry with bountiful information on practical and proven approaches to lowering silica concentrations in mining, utilizing the most effective parts of the hierarchy of controls. This includes approaches to hazard assessment; control systems such as dust collection systems, wet spray systems, and filtration and pressurization systems; and other controls for

[11] 88 FR 44897.
[12] 88 FR 44921.

drilling and blasting, crushing, milling, and screening, conveying and transport, bagging, bulk loading, haul roads, stockpiles and exposed areas, and other secondary sources.

MSHA has appropriately determined that the sampling methods necessary to perform exposure monitoring is technically feasible, including sampling equipment and laboratory capacity. It has been more than seven years since OSHA required general industry and construction employers for some tasks to perform exposure monitoring to assess workers exposures. During this time, OSHA estimated that there would be 675,770 establishments that would have to assess exposures, including 75,074 in general industry and maritime that only has an exposure monitoring option for assessment.[13] The number of affected establishments covered by the OSHA standard can be related to the number of mines; MSHA has estimated there would be 12,631 affected mines.[14] The Safety and Health Director of the United Steelworkers, representing both miners and general industry workers exposed to silica, Steve Sallman, testified that OSHA's rule has been effective and employers found it was not hard to collect and analyze air samples. He also stated that equipment manufacturers and labs will be able to accommodate the increased demand, just as they did when the OSHA rule was issued, as they monitor regulatory action to determine supply and demand. (Tr. 107, August 10, 2023).

Below, we respond to many of MSHA's specific questions in the proposed rule.

Health Effects

1. In the standalone, background document entitled "Health Effects of Respirable Crystalline Silica" and as summarized in Section V. Health Effects Summary of this preamble, MSHA has made a preliminary determination that miners' exposure to respirable crystalline silica presents a risk of material health impairment due to the risk of developing silicosis, NMRD, lung cancer, and renal disease, based on its extensive review of the health effects literature. MSHA requests comments on this preliminary determination and its literature review, which draws heavily from the review conducted by OSHA for its 2016 rulemaking. Are there additional adverse health effects that should be included or more recent literature that offers a different perspective? MSHA requests that commenters submit information, data, or additional studies or their citations. Please be specific regarding the basis for any recommendation to include additional adverse health effects.

Please see our comments above.

[13] 81 FR 16418.
[14] 88 FR 44938.

Preliminary Risk Analysis

2. In the standalone, background document entitled "Preliminary Risk Analysis" and as summarized in Section VI. Preliminary Risk Analysis Summary of this preamble, MSHA relied on risk models that OSHA used in support of its 2016 respirable crystalline silica final rule. Does the context of the MSHA rule suggest that the model would benefit from changes? If so, please describe both the justification for those changes and the likely impact on the final risk estimates. Are there additional studies or sources of data that MSHA should consider? What is the rationale for recommending the use of these additional studies or data?

Please see our comments above.

Technological Feasibility of the Proposed Rule

4. As discussed in Section VIII. Technological Feasibility of this preamble, MSHA has preliminarily determined that it is technologically feasible for mine operators to conduct air sampling and analysis and to achieve the proposed PEL using commercially available samplers. MSHA has also determined that these technologically feasible samplers are widely available, and a number of commercial laboratories provide the service of analyzing dust containing respirable crystalline silica. In addition, MSHA has determined that technologically feasible engineering controls are readily available, can control crystalline silica-containing dust particles at the source, provide reliable and consistent protection to all miners who would otherwise be exposed to respirable dust, and can be monitored. MSHA has also determined that administrative controls, used to supplement engineering controls, can further reduce and maintain exposures at or below the proposed PEL. Moreover, MSHA has preliminarily determined the proposed respiratory protection practices for respirator use are technologically feasible for mine operators to implement. MSHA requests comments on these preliminary conclusions. What methods have you used that proved effective in reducing miners' exposure to respirable crystalline silica in mining operations? Please explain how those methods were effective in reducing miners' exposures. To what extent do existing controls that reduce exposure to other airborne hazards (*e.g.,* coal dust, diesel particulate matter) already reduce exposures to respirable crystalline silica below the proposed PEL? To what extent does the proposed rule including the PEL facilitate MSHA's workplace health and safety goals? Please provide supporting information, such as quantitative data if available

Please see our comments above.

5. MSHA has determined that the proposed medical surveillance requirements for MNM are technologically feasible. MSHA requests comments on this preliminary conclusion. Please provide supporting information, such as quantitative data if available.

The AFL-CIO agrees with MSHA's preliminary conclusion that it is technologically feasible for the MNM industry to provide medical surveillance to all miners. The procedures required under the proposed rule are commonly performed medical examinations.

One of the procedures required, a chest X-ray classified by a NIOSH-certified B Reader, is more specific. This certification provides a standardized level of interpretation. It is already common practice for NIOSH-certified B Readers to be electronically sent digital X-rays for interpretation. Additionally, the number of certified B readers is largely driven by the demand for the certification that should increase with regulatory requirements under the final MSHA standard. NIOSH has already taken steps to help ensure that NIOSH-certified B readers will be available for years to come as they are working to increase the number of certification examination sites and other methods to improve access across the country.

We urge MSHA to strengthen key areas of its proposed medical surveillance provisions (see our comments under question 32), and it is technologically feasible to do so.

MSHA should specify in the rule that miners should be allowed to choose their physician or another licensed health care provider to ensure they receive medical examinations from a trusted PLHCP, and not a PLHCP selected by the mine operator. Every mine worker testifying in the rulemaking hearings spoke of their distrust of mine operators and allowing mine workers to select where to receive their medical care is a feasible approach to ensure MSHA achieves the aim of miners receiving adequate medical care to reduce silica disease burden.

Even in areas where health care is not as accessible as large metropolitan areas, there have been robust medical surveillance programs for workers. This includes the Coal Workers' Health Surveillance Program (CWHSP), Worker Health Protection Program (WHPP), and the Building Trades National Medical Screening Program (BTMed). These programs each utilize mobile medical screenings to bring high quality standardized exams to workers who are at high risk of developing work-related illnesses. For the CWHSP, this includes a work history and respiratory questionnaire, chest x-ray with B reading, blood pressure screening and spirometry. For the WHPP and BTMed, this includes medical and occupational exposure questionnaires, physical examination, chest x-ray with B reading, spirometry, audiometry, urinalysis, complete blood test, beryllium sensitization test (for eligible workers), and a low-dose CT scan (for eligible workers). These programs have resulted in countless benefits through detection of occupational illnesses at no cost to the workers, even providing low-dose CT scans through a mobile van to workers in cities with a population under 10,000. Additionally, each of these programs provides a standardized level of surveillance, uses a central

reporting system and provides medical confidentiality for workers. Similar programs can be created for MNM miners, whose exposures mean they also need this level of care and confidentiality.

Scope and Effective Date

9. MSHA is proposing a unified regulatory and enforcement framework for controlling miners' exposures to respirable crystalline silica for the mining industry. MSHA requests comments on this unified regulatory and enforcement framework. MSHA requests the views and recommendations of stakeholders regarding the scope of proposed part 60, which would include all surface and underground MNM and coal mines. MSHA requests comments on whether separate standards should be developed for the MNM mining industry and the coal mining industry. Please provide supporting information.

MSHA should ensure that the final standard, unified or not, ensures that coal and MNM miners are afforded the same protections and is in line with the Mine Safety and Health Act. The Act requires MSHA to set standards to assure that no miners will suffer material impairment of health or functional capacity from exposure to toxic materials or harmful physical agents over their working lives and attain the highest degree of health and safety protections for the miner considering the latest available scientific data, feasibility and experience of other laws.[15] MSHA must keep their mandate in mind and consider the most protective provisions and best available technologies in the sectors and that they may be unique in order to reduce the risk to every miner. Any potential division of standards cannot weaken the protections for one group over another.

10. MSHA is proposing that the final rule would be effective 120 days after its publication in the Federal Register. This period is intended to provide mine operators time to evaluate existing engineering and administrative controls, update their respiratory protection programs, and prepare to comply with other provisions of the rule including recordkeeping requirements. Please provide your views on the proposed effective date. In your response, please include the rationale for your position.

The AFL-CIO supports the effective date of the final rule 120 days after its publication. This rule has been in development for more than a decade and there is a well-established record with peer reviewed literature and intervention evidence that supports the economic and technological feasibility of assessing silica exposures, maintaining and implementing engineering and administrative controls, and complying with other provisions.

[15] 30 U.S.C. 811(a)(6)(A).

Definitions

11. MSHA requests comments on the proposed action level. Stakeholders should provide specific information and data in support of or against a proposed action level. Stakeholders should include a discussion of how the use of a proposed action level would impact their mines, including the cost of monitoring respirable crystalline silica above the proposed action level, and other relevant information. Please provide supporting information.

See responses to question 13.

12. MSHA requests comments on the proposed definition for "objective data." Is it appropriate to allow mine operators to use objective data instead of a second baseline sample? Please provide supporting information.

The AFL-CIO is concerned that the proposed definition for objective data is too subjective for it to be used for baseline sampling. This would result in different data qualities being used to exempt mine operators from periodic sampling based on the subjective view of the mine operator and MSHA inspector. This would lead to one non-representative baseline sample and non-representative objective data exempting mine operators from any further exposure monitoring and implementing control measures to reduce dust concentrations. The final standard needs to provide greater clarification and guidance on the kind of data that may or may not be relied upon. Additionally, there are many examples of changing conditions where non-routine activities result in high silica exposures. See question 18 for more information.

For these reasons, MSHA should not allow mine operators to use objective data defined as it is in the proposed rule in order to be excluded from sampling. In the OSHA rulemaking record, NIOSH suggested improvements for the definition of objective data that we support. (OSHA-2010-0034-2177). If the definition cannot be sufficiently clarified, MSHA could only allow objective data from sampling that has been performed by the agency.

The MSHA rulemaking record already contains a myriad of evidence that mine operators are known to commit fraud or to sample under non-representative conditions when performing sampling to reduce their responsibilities to reduce dust concentrations. See our response to question 17. This is why it is critical that the objective data definition be clear and ensure objective data is representative of miner's exposures.

MSHA should also consider only allowing objective data that utilizes other technologies that will provide as close to real-time representative sampling as possible, for example rapid quartz monitoring, or when the technology is available, real-time continuous monitoring. See our response to question 31 for more information on other

technologies. Requiring the use of the best available technologies for objective data would encourage the use of these technologies and spur innovation in the mining industry.

Proposed Permissible Exposure Limit

13. MSHA is proposing a PEL for respirable crystalline silica of 50 µg/m ^{3} for a full-shift exposure, calculated as an 8-hour TWA for MNM and coal miners. MSHA has made a preliminary determination that the proposed PEL would reduce miners' risk of suffering material impairment of health or functional capacity over their working lives. MSHA seeks the views and recommendations of stakeholders on the proposed PEL. MSHA solicits comments on the approach of having a standalone PEL and whether to eliminate the reduced standard for total respirable dust when quartz is present at coal mines. Please provide evidence to support your response.

The AFL-CIO strongly supports MSHA reducing the exposure limits in mining to be as protective as the exposure limits to protect workers in other industries. The proposed PEL of 50 ug/m^3 and proposed action level of 25 ug/m^3 will significantly reduce the risk of death and disease and there is supporting evidence that these exposure limits are feasible in coal and MNM mining. However, MSHA has recognized in their proposal that there remains significant risk to workers at the PEL.

We urge the agency to continue to evaluate the evidence submitted during this rulemaking, in conjunction with NIOSH research and information, to determine if there is additional evidence to support the feasibility of a lower exposure limit. In response to the clear evidence that exposure to respirable crystalline silica poses a serious health risk to workers, other countries and jurisdictions have strengthened standards and have instituted permissible occupational exposure limits that are below the proposed MSHA PEL. Japan, Italy, and the Canadian provinces of Alberta, Nova Scotia and Saskatchean have all set standards reducing legal permissible limits to 25 µg/m^3.[16]

We also strongly support the requirement for a miner's exposure to silica being measured over a full working shift and calculated over an 8-hour time period. This practice is consistent with typical chemical substance monitoring and is supported by NIOSH. Additionally, this ensures that the exposure calculation helps mitigate the high body burden caused by working long shifts when the miner's body recovery time is reduced.

[16] OSHA-2010-0034-3985; OSHA-2010-0034-4072, Attachments 38, 39, 40, 41, 42, 43, 44, 45, and 46.

14. MSHA is proposing a PEL of 50 ug/m ^{3} and an action level of 25 µg/m ^{3} for respirable crystalline silica exposure. Which proposed requirements should be triggered by exposure at, above, or below the proposed action level? Please provide supporting information.

The AFL-CIO supports the proposed requirements to have mine operators adhere to the hierarchy of controls when there are exposures above the PEL. Additionally, we support requiring exposure monitoring when exposures are at or above the action level. Although the proposed exposure monitoring requirements are not sufficient. See question 16 for more information.

Additionally, MSHA must strengthen their corrective action requirements when mine operators know there are exposures above the PEL. It is not sufficient to make respirators available before the next work shift and take immediate corrective actions to lower the silica concentration. The corrective actions must be meaningful, i.e., reduce exposure in real time and address the source of the dust. Mine operators, without oversight, would rely on no protections until the next shift and then only respiratory protection until an inspection, which puts workers at significant risk. Corrective actions are also of the utmost urgency in mining, as a change in condition seen in air monitoring can be an indication the atmosphere is otherwise unsafe. It must be clear that miners must be removed from potentially unsafe atmospheres until it is determined that it is safe.

The corrective action provisions must also include additional actions for mine operators to take when there is continued exposure above the PEL (i.e., noncompliance with the standard, upon the issuance of a citation, and when there is a pattern of violations). Continued overexposures must trigger additional sampling, including using the best available technology and compliance sampling. There must be more significant corrective actions taken to ensure dust concentrations are reduced permanently and not only temporarily when the corrective action sample is taken or the inspector is present. MSHA can look to their other mine dust standards for stronger corrective action provisions. For example, in the coal dust standard after a citation, the mine operator must be required to submit revised dust control parameters as a part of the mine ventilation plan for approval by the MSHA district manager.

Methods of Compliance

15. MSHA requests comments on the proposed prohibition against rotation of miners as an administrative control. Please include a discussion of the potential effectiveness of this non-exposure approach and its impact on miners at specific mines. Please provide supporting information.

We strongly support the provision that prohibits the use of miner rotation in order to keep miners' silica exposures below the PEL. Worker rotation is not an acceptable control measure when reducing risk of exposure to a carcinogen.[17] Rotating miners in and out of high silica dust concentrations would prevent employers from installing the engineering controls necessary to reduce dust concentrations and would increase the number of miners exposed to high levels of silica.

We also support MSHA's assessment that allowing for more miners to be exposed to high levels of silica on rotation would lead to an increased material impairment of health or functional capacity for the exposed miners, and would be counter to the Mine Act's mandate.

16. MSHA requests comments on the proposed requirement that mine operators must install, use, and maintain feasible engineering and administrative controls to keep miners' exposures to respirable crystalline silica below the proposed PEL. Please provide supporting information.

The AFL-CIO strongly supports the requirement that mine operators adhere to the hierarchy of controls to reduce miner's exposure to every identified hazard. This is longstanding MSHA and industrial hygiene policy and practice and it is widely accepted that the control of workplace hazards should be based on the hierarchy. Many mine operators already are required to have ventilation plans for diesel fumes and respirable dust, making complying with ventilation at the top of the hierarchy more feasible to reduce silica dust.

Proposed Exposure Monitoring

17. MSHA requests comments and information from stakeholders concerning the proposed approaches to monitoring exposures, and other approaches to accurately monitor miner exposure to respirable crystalline silica in MNM and coal mines. Please provide supporting information and data.

The AFL-CIO strongly recommends strengthening the exposure monitoring provisions in the final rule. In order for the rule to protect miners from exposure to silica, the silica exposures must be appropriately and accurately characterized. The proposed rule requires mine operators to characterize the exposure through minimal baseline monitoring, periodic sampling quarterly (if conditions have not been met to be excluded from this requirement), corrective action sampling (when a control measure is implemented after a monitoring has showed exposures above the PEL), and post-evaluation sampling (if the mine operator has determined in the six-month semi-annual evaluation that there may be new or increased exposures).

[17] 88 FR 44905.

This scheme is woefully insufficient to accurately characterize silica exposures on a mine site as part of an exposure assessment and does not include or build on provisions in other MSHA mine dust rules that ensure mine operators are accurately monitoring and characterizing exposures. Under the proposed rule, it would be remarkably easy for mine operators to perform non-representative baseline sampling once in order to determine that there is no need for additional sampling or control measures. MSHA should look to the strong sampling requirements in the respirable coal dust standard which ensures mine operators are accurately characterizing dust exposures and other applicable provisions of that standard that can strengthen the final silica rule.

Consistent with other mine dust rules, MSHA must require mine operators to pre-designate specific work positions to undergo sampling and submit the work positions to MSHA, who, after review, can designate other work positions for sampling. In addition, this information must be reviewed and approved by miners and their representatives, helping to ensure that mine operators are performing, at minimum, sampling for the correct individuals and tasks.

Also, there are many high-silica generating tasks that are not currently monitored adequately under the respirable dust standards and are not controlled sufficiently. Miners have commented that even when there is ventilation during production activities, these activities are not properly controlled to reduce silica dust. These include, but are not limited to cutting overcasts, belt channels, slopes, and other outby construction work occurring in rock. MSHA must ensure these tasks are representatively monitored and adequately controlled. This may include mine operators reporting to MSHA the schedule for when these activities will be performed.

MSHA must also require mine operators to post the sampling results on site, and provide the results to MSHA, miners and their representatives similar to the requirements under the respirable coal dust rule. As United Steelworker, Marshal Cumming, testified in Denver, CO, mine operators do not always readily provide exposure monitoring data to miners or their representatives:

> To get my hands on these two samples, I drafted a Request for Information and I had difficulties getting them from us. I had to request once. The deadline wasn't met. I had to get union leadership involved. My union president went up there and said, "How far do we have to go to get this?" HR, then, responded that we can see what we're exposed to. So, that's I contracted these. Like I said, both requests had exceeded the dates on the request to be handed to us. I asked for

> the MSHA approved plan going forward. That's to keep our workers safe. They have lapsed on both deadlines that I requested, and instead of trying to go through the National Labor Relations Board, I had union leadership; he's meeting with HR trying to discuss it, and hopefully, we can get involved with a plan to go forward. (Tr. 112, August 21, 2023).

Mine operators are used to reporting information to MSHA and there are mechanisms already utilized that can be used for silica sampling results as well.

MSHA must also require mine operators to perform sampling more frequently. Baseline sampling or objective data must not exempt mine operators from additional monitoring. The periodic sampling frequency in the proposed standard is not sufficient and not a significant improvement from current requirements, which have not adequately reduced exposures. In the coal industry, MSHA currently requires quarterly periodic sampling under the respirable dust standard and in the MNM industry, MSHA requires sampling to determine the adequacy of control measures. At minimum, MSHA must require more frequent monitoring in addition to strengthening the requirements to ensure this monitoring is representative of miners' exposures.

Miner Brian Toothman, testified on the insufficiency of quarterly monitoring:

> I mean, if you do it on a quarterly basis, you know, and they're not mining out of seam or out of strata, then you're going to miss it that time, you know what I mean? Say a week later you're in it and you're in it for the next three months until they come back the next time. (Tr. 80-81, August 10, 2023).

In order to more accurately characterize exposures, MSHA should require and encourage the use of the best available technology to identify levels of dust that must be controlled or ensure a control measure is working. Currently, the best available technology for silica in mining is rapid quartz monitoring (RQM) for known work operations with silica exposures. The final rule must include monitoring requirements that ensure exposures are accurately characterized. However, this does not mean that the monitoring must be laboratory analysis accurate, it means that exposures that are below the action level, between the action level and PEL, or above the PEL are properly identified. RQM may not be as accurate in all settings as laboratory-analyzed samples; however, it is accurate enough to determine if exposures are in the category of below the action level, between the action level and PEL, or above the PEL. Additional laboratory analysis can always be completed to determine with confidence if a sample is within a margin of error to the action or PEL. In Question 18, we further discuss how conditions are constantly changing in all types of mining. Therefore, technology that

allows for near, real-time monitoring must be utilized. See question 31 for more information on best available technologies.

MSHA understands the benefits of technology that can provide close to real-time monitoring in order to better characterize exposures, that it would be very important and would be an advancement toward miners' health. We are also pleased that MSHA would like to encourage further advancement of this technology. (Tr. 98, August 10, 2023). The AFL-CIO urges MSHA to include provisions in the final rule that would require or encourage the use of these technologies so that their benefits can be seen now and in the future.

In addition to strengthening provisions for mining operator sampling, MSHA must also increase their capacity to perform independent sampling to hold mine operators accountable. MSHA having the responsibility to conduct respirable dust sampling ensures mine operators are complying with the standard.

The final standard must be strengthened to ensure the exposure monitoring occurs in a way it paints a picture of the mine work conditions and results in samples that are representative of miners' exposures so that mitigation measures can be appropriately identified and applied. Far too often, mine operators have taken opportunities to perform fraudulent monitoring—and use fear of retaliation to get miners to aid them—in order to prevent the operator from having to implement additional control measures to keep miners safe. Many miners and their health care providers testified to these situations and other types of mine operator fraud during the hearings:

> I and other providers in black lung clinics routinely encounter former miners who state that operator sampling is often not representative of actual mining conditions, whether, for example, because devices are placed in intake air, were placed inside lunch boxes, or given to the miner assigned a role at very low expected dust exposure. These stories are sufficiently frequent in the clinics that I am concerned that the loss of inspector sampling in coal miner will further enable this behavior. It's critical that MSHA inspectors remain involved in sampling dust for silica. (Tr. 30-31, August 10, 2023).
>
> I know how some companies talk safety and health, but they know to -- how to manipulate the rules and dust samples. If you're an employee and your normal job is where the dust is bad, they will put you in an area where the dust isn't as bad when MSHA's around. They only use dust control or water to hold the dust down while that area's being sampled to accurately monitor silica levels in the mines. (Tr. 43-44, August 10, 2023).

Further, these inspectors should remain on-site collecting multiple samples and observing operations for the entirety of an eight to ten hour shift over numerous consecutive days. Otherwise, many miners who I've worked with will tell me how, you know, it's pretty common practice for, oh the inspector's coming, let's put up the dust curtain, let's, you know, do this, that, and the other, kind of make it look good, and then the inspector leaves and they just go back to running the coal as fast as they can, you know, health and safety measures kind of out the window. (Tr. 52-53, August 10, 2023).

In my time in the mines, I have worn personal -- personal dust monitors, and I have seen what operators do when inspectors visit. I want these companies to do better. I don't want them to shut down. But if you look at the production numbers on days when the inspectors visit, and when they don't, you can tell they are gaming the system. To keep it honest, both operators and MSHA inspectors should conduct quarterly samples. Operators don't want to be over their limit, but they know how to keep miners afraid of speaking out. These are good-paying jobs, and no one wants to lose them. We've got families to take care of and support, and in many places down here you don't have any other work. There needs to be a better way to keep your younger miners safe, keep businesses open without risking the next generation's health. The shortage of MSHA inspectors makes this even tougher. In my experience, MSHA would run samples on everyone, and sometimes they would just sample one group or another. But the thing about it is, the only way for inspectors to see what goes on in these mines is if they were -- they were with them the entire shift. And I know it had to be tough. I mean, I -- no doubt about it. And that's impossible. And what happens when the inspectors leave, no one wants to be honest about what is happening. And if they were, we wouldn't have this epidemic of black lung right now. (Tr. 67-68, August 10, 2023).

And I'm as guilty as any of them for hiding dust samples. We would -- the inspector would bring the dust pumps and pin them on me. As soon as you get to the section, they go to the intake. Cheating the samples is what we need to stop. If we could stop this, we could save some lives. We need to crack down and make these men wear them for the eight-hour shift. And the 80 percent of the coal they have to produce during that session, when you get to 80 percent, the section shuts down. We just need to keep track of these dust samples and put a stop to hiding them. If you read in the paper here three or four weeks ago, they caught a foreman and one of the men putting a dust sample in a box. (Tr. 70-71, August 23, 2023).

So the silica problem is real and the testimony that everyone has gave here today about the pumps not being taken care of properly is true. And it's unfortunate that men do that to provide for their families to protect the companies. You know, the companies need to be accountable held to accountability for those actions. We need more inspectors. They need to come more than quarterly, though. (Tr. 88-89, August 10, 2023).

And it has to be drastic where you pay to have the inspectors at the end of the day because if we can't get somebody to turn on a methane detector like at Upper Big Branch, or they're bridging things out, you think we're going to get them to work dust samplers without somebody there watching them? It's not going to happen. (Tr. 119, August 10, 2023).

[W]hen we let the company control this, then we're really hurting because they get to make the decisions. And I'm going to give you examples. When I was in there, they told us if we get bad samples, that they'll be shutting the mines down or that we can't keep it. And we're doing stuff to keep from getting bad samples. And then, even when we have inspectors coming, well, we know the inspector can't be there the whole shift, so about 12:00 o'clock, they would go out. But when the inspector left, they come and collect all the dust samples and carry them to the open intake. So, really, you ain't getting what you need to be done. (Tr. 121-122, August 10, 2023).

If you don't pin it on every miner and have them doing the same at the same task, they know how to trick -- if you just pin it on the mine operators, that's what they do. They put it -- the mine operators, because they got a remote control, they put him back in the air. But you still got the two buggy boys. Then you got the -- if you're going to pin it on the bolt men, they don't bring the return because the dust is going across the section. They stay there probably one time a shift. But they're there almost the whole shift. (Tr. 123, August 10, 2023).

So, I'm saying is that we need to make sure that we don't let the company do what they're doing. Like, say, they know every trick in the book. Like, say, if you let them give a sample, guess what? They give it to one of us and say, well, I want you to stay in the intake all day long. So, you really ain't getting the aspect of what's going on. (Tr. 124, August 10, 2023).

I blame the coal miners, us, because if we would speak up -- but most of us won't speak up. We're scared. We hear about the law that the federal government's coming -- guess what? If you ain't got nobody to represent you, hey, you won't go out there and say, hey, we got all this dust coming in, and we don't know what to do about it. Because we know they'll get rid of us. I had people tell me that, say,

> hey, we'll shut this mine down just to get rid of you. If they shut it down, how are you going to -- because you can't get hired at the other place. (Tr. 123-124, August 10, 2023).
>
> My husband worked underground for 36 years. We had a lot of arguments over him telling me that he had to wrap that dust sample and put it in a box, that kind of thing. And all the more that I would complain, he said, do you want to eat? I didn't work back then, so I understood where he came from. I understand where the rest of them come from. These men have no choices for the things that they do because of retaliation. The only choices out there now is the ones that you guys make and the ones that we'll help you defend. So, we're just asking that you will think about that as far as that goes (Tr. 131, August 10, 2023).
>
> I have countless patients at Stone Mountain who have shared stories with me of mine operators hiding evidence about dangerous conditions where they work. As Gary Ewart with the ATS just stated, many of my patients were told by their supervisors to do things that are appalling to them. Whether it's covering their dust monitors in coffee filters or putting them in their lunchboxes or being told to hang them in clean-air parts of the mine, all of these things are unacceptable. And my patients frequently describe incidents where new or improved ventilations, new curtains are being hung in places right before MSHA inspectors show up for quarterly visits. I hear about these dishonest practices all the time when I talk with my Stone Mountain patients, and I'm not asking them to tell me these things. They just tell me these things. (Tr. 70, August 3, 2023).

We appreciate the enforcement actions MSHA takes against these mine operators, but strong requirements built into the standard are needed to prevent this behavior. In the words of the Safety Administrator for the United Mine Workers of America, Josh Roberts, "history shows that when you leave an opportunity for loopholes or the gaming of the system, some people will take advantage of that" (Tr. 95, August 10, 2023).

18. MSHA proposes to require mine operators to collect a respirable crystalline silica sample for a miner's regular full shift during typical mining activities. Many potential sources of respirable crystalline silica are present only when the mine is operating under typical conditions. MSHA requests comments on this requirement and whether to specify environmental conditions under which samples should be taken to ensure that samples accurately reflect actual levels of respirable crystalline silica exposure. In MSHA's experience, for example, environmental conditions such as precipitation (*e.g.,* rain or snow) or wind could affect the actual levels of respirable crystalline silica exposure at miners' normal or regular workplaces throughout their typical workday. Please provide supporting information and data.

The AFL-CIO strongly supports requiring sampling to be performed during a typical work shift. However, this requirement must include normal production capacity, under typical environmental conditions, and doing typical tasks for the work position. Without these requirements, dishonest mine operators have sampled when production capacity is very low, when it is raining outside—a natural dust suppressant—or when they have assigned workers to low dust tasks for significant portions of their shift.

Additionally, there are many high-silica generating tasks that are not typical or routine that must also be characterized. These include, but are not limited to: upset conditions, cutting overcasts, belt channels, slopes and outby construction cutting, outby rehabilitation, and other outby tasks occurring in rock, and filter changes on dust collection systems. (Tr. 106, August 10, 2023).

In developing exposure monitoring requirements, MSHA must also take into consideration that the nature of mining creates constantly changing environments. As mining occurs, the environment can rapidly change depending on geographic makeup, other mining occurring above or below a mining area, and other external factors—even within 24 hours.

The amount of rock versus production recovery can vary widely depending on the specific substance and seam. Brian Toothman, a miner testifying on behalf of the United Mine Workers of America spoke on the amount of recovery in stand-up coal mines:

> And one piece of that I think you need to look at is the amount of recovery the coal mine gets. And like I say, we're in a stand-up coal mine, so, I mean, we're taking nine feet. And in that nine feet, you know, I mean, you're looking at a 70 percent recovery. So you're looking at 30 percent every day that you're being mined through. There's rock substance, you know, they consider garbage. (Tr. 77, August 10, 2023).

Additionally, miner Brian Toothman testified about how various work has different exposures depending on not only the tasks being performed, but how the ventilation moves the dust throughout the mine:

> I'm outby -- like I say, I do ventilation control at my coal mine, so we're building walls, which some people call brattice. I mean, that's how we regulate the intake air coming into the mine, return air exiting the mine. You know what I mean? Now, like I say, a lot of people talked about everything outby affects the inby people, because if you stir up the dust out along the haulage, it forces it all the way into the section. You know what I mean? What's happening on the section is being ventilated out through the returns. If you're a person who works or

> occasionally has to work in the return, then you're more exposed to it than the guys, you know what I mean, further outby. (Tr. 82, August 23, 2023).

Miner Robert Cash with the United Mine Workers of America testified about how his silica exposure changes as a roof bolter:

> I'm a roof bolt operator and have been for twelve years. I'm on the return side of the curtain. I get all the dust from whatever my partner drills or hones or if he takes his dust bag out of his box, so I get it all. We're in coal from 40 inches, sometimes we do to fourteen feet and we may cut eight foot of rock just to get two foot of coal. (Tr. 88, August 23, 2023).

Miner James McDonald with the United Mine Workers of America testified about the non-routine but high silica exposures he experiences in the maintenance department of a surface mine:

> I work in the maintenance department in mining, and I've done it my whole career. And me, it's kind of different from the other guys that's underground. You know, my -- my exposure is every day because I'm out in the elements. You know, I'm in a pit. You know, there are drillers that, you know, drilling the rock, and I'm out here doing service or work on that piece of equipment. I'm constantly in this silica. And, you know, the shots up there that has been dug, you know, the actual men that's on the ground on a surface mine, we don't get to -- we don't actually get the testing [meaning exposure monitoring] that I think should be relevant to what we do. All the testing that we get done on a surface mine is basically done quarterly on the equipment, the operation of the equipment. But there's a lot of guys that's out there in the -- in the surface mining industry that we're out in that exposure every day at a high level. (Tr. 91, August 10, 2023)

19. MSHA recognizes that some mining facilities operate seasonally or intermittently and that cumulative exposures for miners at these facilities may be lower than that of miners working at year-round operations. MSHA requests comments on the exposure monitoring approach under proposed § 60.12, including the frequency of exposure monitoring necessary to safeguard the health of miners at seasonal or intermittent operations. Please provide supporting information and data.

Mine operations that occur seasonally or intermittently should be required to report to MSHA when operations begin and end and sampling should be conducted to characterize exposures when the the facilities are fully operational. The facility should not be allowed to operate without ensuring that the hazards have been identified and control measures have been implemented to meet the PEL.

20. MSHA is proposing that each mine operator perform baseline sampling within 180 days after the rule becomes effective to assess the respirable crystalline silica exposure of each miner who is or may reasonably be expected to be exposed to respirable crystalline silica. MSHA requests comments on this proposed baseline sampling requirement. MSHA also requests comment on the ability of service providers used by mines such as industrial hygiene suppliers and consultants, and accredited laboratories that conduct respirable crystalline silica analysis, to meet the demand created by the baseline sampling requirements within the proposed timeline. Please include alternative approaches that might be equally protective of miners that should be implemented for assessing a miner's initial exposure to respirable crystalline silica.

The AFL-CIO strongly supports requiring baseline sampling within 180 days of the rule's effective date to assess the respirable crystalline silica exposure of each miner who is or may reasonably be expected to be exposed to respirable crystalline silica. However, we do not support such baseline sampling exempting mine operators from additional sampling requirements. See questions 17 and 18 for more information.

21. MSHA is proposing a requirement that mine operators qualitatively evaluate every 6 months any changes in production, processes, engineering controls, personnel, administrative controls, or other factors, beginning 18 months after the effective date. MSHA requests comments on the timing of the proposed semi-annual evaluation requirements, and in particular, whether miners would possibly be exposed unnecessarily to respirable crystalline silica levels above the PEL due to the gap between the effective date and the proposed requirements. Please provide supporting information.

A semi-annual evaluation and optional, mine operator determined sampling is insufficient to address the real world variable working conditions in the mining industry, and the ability for operators to change conditions quickly, as described in our response to question 18. The agency must ensure that the final standard will not result in miners being overexposed to silica for up to six month periods. Consistent hazard analysis is always done in mining environments, and assessing silica should not be an exception. Mine operators should be consistently performing hazard assessments and evaluating the control measures in place to prevent dangerous levels of silica. Additionally, the mine operator should report to MSHA when there are significant changes that could increase silica concentrations and require the implementation of a change in control measures.

22. MSHA has determined that most occupations related to extraction and processing would meet the "reasonably be expected" threshold for baseline sampling. MSHA recognizes that some miners may work in areas or perform tasks where exposure is not reasonably expected, if at all. MSHA solicits comments on the assumption that most miners are exposed to at least some level

of respirable crystalline silica, and on the proposed requirement that these miners should be subject to baseline sampling. Please provide supporting information.

See the response to question 18. Mine operators must have to pre-designate specific work positions and have it approved by MSHA for baseline and periodic sampling.

23. MSHA is proposing that mine operators would not be required to conduct periodic sampling if the baseline sampling result, together with another sampling result or objective data, as defined in proposed § 60.2, confirms miners' exposures are below the proposed action level. MSHA seeks comments on this proposal. Please provide supporting information and data.

See responses to questions 17 and 18.

24. MSHA is proposing that mine operators conduct periodic sampling within 3 months where the most recent sampling indicates miner exposures are at or above the proposed action level but at or below the proposed PEL and continue to sample within 3 months of the previous sampling until two consecutive samplings indicate that miner exposures are below the action level. MSHA solicits comments on the proposed frequency for periodic sampling, including whether the consecutive samples should be at least 7 days apart. Please provide supporting information and data.

The proposed periodic sampling requirements are not sufficient to assess silica concentrations in mining and prevent overexposures. See responses to questions 17 and 18 for more information.

25. MSHA is proposing that mine operators may discontinue periodic sampling when two consecutive samples indicate that miner exposures are below the proposed action level. MSHA requests comments on this proposal. Please provide supporting information and data.

The proposed periodic sampling requirements are not sufficient to assess silica concentrations in mining and prevent overexposures. See responses to questions 17 and 18 for more information.

26. MSHA is proposing that mine operators conduct semi-annual evaluations to evaluate whether any changes in production, processes, engineering controls, personnel, administrative controls, or other factors may reasonably be expected to result in new or increased respirable crystalline silica exposures. Please provide comments on this proposal, as well as alternative approaches that would be appropriate for evaluating any potential new or increased respirable crystalline silica exposures. Please provide supporting information and data.

See responses to question 21.

28. MSHA is proposing the use of representative sampling. Where several miners perform the same task on the same shift and in the same work area, the mine operator may sample a representative fraction of miners to meet the proposed exposure monitoring requirements. MSHA seeks comments on the use of representative sampling. Please provide supporting information and data.

Using representative sampling is problematic without additional requirements to prevent mine operator fraud and tampering when performing sampling. As discussed in responses to question 18, mine operators often alter job tasks or the location of the samplers so that they are not representative of the miners' exposures. Using falsified sampling to be representative of all miners in the area would result in all miners performing that task on the same shift in the same work area being overexposed to dangerous levels of silica.

Gary Hairston, a miner and President of the National Lung Association and Fayette County Black Lung Association specifically testified to how representative sampling is performed fraudulently:

> If you don't pin it on every miner and have them doing the same at the same task, they know how to trick -- if you just pin it on the mine operators, that's what they do. They put it -- the mine operators, because they got a remote control, they put him back in the air. But you still got the two buggy boys. Then you got the -- if you're going to pin it on the bolt men, they don't bring the return because the dust is going across the section. They stay there probably one time a shift. But they're there almost the whole shift. (Tr. 123, August 10, 2023).

31. MSHA seeks comments and information on mine operator and stakeholder experience using NIOSH's rapid field-based quartz monitoring (RQM) monitors for determining miners' exposures to respirable crystalline silica. Please provide any information and data.

NIOSH has been using portable Fourier transform infrared (FTIR) end-of-shift monitors and the Field Analysis of Silica Tool (FAST) software to monitor and analyze on-site silica concentrations in mining for years, and is working towards development of a formal NIOSH sampling method using this system.

At this time, NIOSH has been developing models in order to complete a NIOSH sampling method and shared that for coal mining, the model is complete and results can be considered accurate enough to characterize a miner's exposure. NIOSH is continuing to complete those models for outside of coal mining and consider those results as approximations that can be used for broader decisions on control measures.

Once a NIOSH method is created, the system can be replicated and utilized on any mining site.[18]

The system is especially beneficial for determining the range of exposure, even if not exact, that a miner is experiencing. As previously mentioned in question 18, RQM is accurate enough to determine if exposures are in the category of below the action level, between the action level and PEL, or above the PEL. If there is a margin of error that may be unclear, there are traditional sampling methods available for compliance. However, it is vital within the changing environments of mining that control measures are implemented and evaluated in a timely manner once an over-exposure is identified. Otherwise, miners could be working in high silica concentrations for weeks until lab results are returned or months until periodic monitoring, a self-evaluation, or an MSHA inspection.

Until a NIOSH method is finalized using their RQM system, mine operators that have used FAST are provided same or next day exposure monitoring results to perform hazard assessment and evaluate their control measures to reduce miners exposures. The process has been designed to be easy to use with free analysis software and training guides on the system. Early adopters of the system have shared that the monitoring system works well, but took them a while to adjust.

MSHA must consider how small mining operations will comply with the rule. Small mining operations often rely on industrial hygiene consulting firms to perform all the required monitoring as they do not have the expertise themselves. Consultants will have access to the best available technologies and expertise to use it accurately.

The AFL-CIO understands that the RQM technology developed by NIOSH will be a field method and not be an ISO 17205 method. However, that does not reduce its value in hazard assessment and evaluation of corrective actions, and should not preclude it from being used in a MSHA standard.

Other best technologies include direct reading sensors for respirable dust and real-time machine report outs. MSHA should work with NIOSH to ensure they are including and encouraging all the best available technology options into the final rule.

The use of real-time monitoring and direct reading instruments is not a new concept. In addition to the research performed by NIOSH in the mining industry, these devices are

[18] Centers for Disease Control and Prevention. The National Institute for Occupational Safety and Health. *Mining Product: FAST - Field Analysis of Silica Tool.* Retrieved from: cdc.gov/niosh/mining/works/coversheet2056.html.

also used in general industry and construction to identify high exposures, often caused by a breakdown in control measures. This was described during OSHA's rulemaking, and there have been additional studies done since that time. (OSHA-2010-0034-3578, Tr. 941-942; OSHA-2010-0034-3584, Tr. 2668-2669, Tr. 2738-2739) In 2020, a pilot project evaluating end of shift sampling use in the construction industry showed promising results in predicting quartz content despite many limitations of interfering dusts and recommendations for additional research in this industry.[19] Mine operators in coal are already adjusted to performing continuous respirable dust monitoring due to the coal dust standard and the metal mining industry has been moving towards voluntary adoption, recognizing its value. The International Council on Mining and Metals have been encouraging the use of real-time particulate monitoring as it is a proactive and effective tool for preventing airborne exposures, mitigating risk and validating control measures.[20]

At a minimum, MSHA should include an approach that incorporates RQM for hazard assessment with a phased-in approach for moving towards requiring consistent RQM or continuous, real-time monitoring as technology improves. Inclusion of this technology in the standard will also facilitate the rapid development and use within the industry. We have made several suggestions on how to incorporate these technologies through objective data and exposure monitoring. This is where the industry is headed, and the final rule should incorporate the current and emerging exposure monitoring technologies.

Proposed Medical Surveillance for Metal and Nonmetal Miners

32. MSHA is proposing to require medical surveillance for MNM miners. Medical surveillance is already required for coal miners under 30 CFR 72.100 and has played an important role in tracking the burden of pneumoconiosis in coal miners but is not currently required for MNM miners. MSHA's proposal would require MNM mine operators to provide each miner new to the mining industry with an initial medical examination and a follow-up examination no later than 3 years after the initial examination, at no cost to the miner. It would also require MNM mine operators to provide examinations for all miners at least every 5 years, which would be voluntary for miners. Is there an alternative strategy or schedule, such as voluntary initial or follow-up examinations, tying the medical surveillance requirement to miners reasonably expected to be exposed to any level of silica or to the action level that would be more appropriate for new MNM

[19] Harpers, M., Wu, C.Y., Chien, C.H. CPWR-The Center for Construction Research and Traiing. *Application of End-of-Shift Respirable Crystalline Silica Monitoring to Construction.* June 2020. Retrieved from: cpwr.com/wp-content/uploads/SS2020-end-of-shift-application.pdf.
[20] International Council of Minig and Metals. *Considerations for the Adoption of Real-time Particulate Monitoring.* January 2022. Retrieved from: icmm.com/website/publications/pdfs/health-and-safety/2022/briefing_considerations-for-the-adoption-of-rtpm.pdf.

miners? Should the rule make each 5-year examination mandatory? Should the 5-year examination be mandatory for coal mine operators as well? Please provide data or cite references to support your position.

The AFL-CIO strongly supports miners working in the MNM mining industries being provided with medical surveillance. The medical surveillance program provided to coal mine workers has had tremendous benefit through early identification of health effects due to miner's occupational exposures. The proposed rule would ensure miners in the MNM sector are also provided this protection to identify any health effects due to silica exposure and prevent further exposure that would exacerbate miner's health issues. However, we have identified several areas that should be strengthened in order to ensure all miners are provided equivalent medical surveillance.

The final rule should require medical surveillance that is provided through a centralized system to ensure a standard of both medical care, reporting and medical confidentiality. This is provided to coal miners through NIOSH's Coal Workers' Health Surveillance Program who provides medical surveillance under Section 72.100. This program should be expanded to include all miners. This program provides standardized and high quality care to our nation's coal miners, including providing care in NIOSH-approved facilities, requiring mine operators to submit how they are offering the surveillance. The testimony provided by the Stone Mountain Black Lung Clinic, National Jewish Health and American Thoracic Society showed the deep commitment these programs have to mine workers. Our nation's MNM miners should be provided this same level of commitment and care and should not be required to receive medical surveillance by a PLHCP chosen by the mine operator.

This program also ensures medical confidentiality for participating miners as they are used to handling sensitive medical information, while communicating with miners and mine operators. While this program has a proven track record of maintaining medical confidentiality, the final rule should modernize to reflect the changes that have occurred in medical privacy and confidentiality. The final rule must incorporate compliance with the Health Insurance Portability and Accountability Act (HIPPA) adopted in 1996, the American Disabilities Act and resulting guidance, such as the 2012 American College of Occupational and Environmental Medicine (ACOEM) Guidelines on Confidentiality of Medical Information in the Workplace.[21] The OSHA rulemaking record has a plethora of information on the importance of workplace rules ensuring a strong level of medical confidentiality. (OSHA-2010-0034-4204)

[21] American College of Occupational and Environmental Medicine. *Confidentiality of Medical Information in the Workplace.* November 6, 2012. Retrieved from: acoem.org/acoem/media/News-Library/Confidentiality-of-Medical-Information-in-Workplace.pdf

OSHA's rulemaking record includes extensive testimony from workers, unions, physicians and others about concerns that employers would misuse medical exam results to retaliate against workers from current or future employment in order to reduce their obligations under the standard, worker's compensation or disability costs. (OSHA-2010-0023-3581; Tr. 1654-1657; OSHA-2010-0034-3584,, OSHA-2010-0023-3584, Tr. 2547; OSHA-2010-0034-3585, Tr. 3053-3054; OSHA-2010-0023-3579, Tr. 169; OSHA-2010-0023-3588, Tr. 3881. Tr. 3882-3883; OSHA-2010-0023-3577, Tr. 820; OSHA-2010-0023-3583, Tr. 2178, Tr. 2471). This fear of retaliation was echoed by the testimony of miner and President of the National Black Lung Association and Fayette County Black Lung Association:

> I got a brother still in the mine. Don't you know he's scared to take an X-ray because he's scared what the company would do for it? So, that's what I'm saying. When you're scared because you -- this is my livelihood. And when something's your livelihood, you do everything that you can to make sure that your family is provided well. (Tr.124-125, August 10, 2023).

Additionally, the centralized NIOSH medical surveillance program allows for systematic reporting of health conditions so they can identify aggregate trends. This program's reporting mechanism is how the alarming trend of progressive massive fibrosis and silicosis among young miners was identified. Without a similar program in MNM, there has been less information about the health toll miners are facing due to silica exposures at work.

MSHA must require a centralized program, preferably expansion of the NIOSH program to all miners, to ensure quality and equity in care to all miners. Examples of ways the program could be expanded and creative solutions to provide sophisticated medical care in rural settings was provided in responses to question 5.

In addition to ensuring a centralized program, the specific medical surveillance provisions must be strengthened. One of the largest benefits of medical surveillance is early identification of respiratory illness to allow for miners to be removed from working conditions that will aggravate or exacerbate their health condition and provide early medical intervention to improve their quality of life. In order for these benefits to be maximized, we recommend strengthening the final rule in two ways. The initial medical screening must be offered to all miners, in addition to new miners, after the final rule is issued. This will provide a baseline health evaluation for miners who have already been working in the industry with a risk of silica-related health effects. The follow up examinations must also be offered more frequently than every five years. Practicing physicians treating miners have identified miners with severe silicosis with only eight

years in the industry. Medical surveillance with the frequency of the proposal would not have identified early signs of silica–related disease with enough time to prevent the case from becoming severe.

Finally, MSHA must include provisions that will encourage participation in the medical surveillance program. While requiring a centralized medical surveillance program is helpful, more needs to be done to encourage participation and reduce barriers. Barriers include lack of awareness, privacy and medical confidentiality concerns, and the fear of retaliation, job loss, loss of potential job advancement, and future employment.[22] In the CWHSP, there are low rates of participation in the voluntary follow up screenings, with fewer than 12% of miners receiving follow up radiographs and less than 3% of miners receiving follow up spirometry testing.[23]

33. MSHA's proposed medical surveillance requirements for MNM miners do not include some requirements that are in MSHA's existing medical surveillance requirements for coal mine operators in 30 CFR 72.100. For example, § 72.100 requires coal mine operators to use NIOSH-approved facilities for medical examinations. Should MNM operators be required to use NIOSH-approved facilities for medical examinations? Coal mine operators also are required to submit for approval to NIOSH a plan for providing miners with the examinations specified. This is because NIOSH administers medical surveillance for coal miners with requirements for coal operators, but not MNM operators, in NIOSH standards (42 CFR part 37). Should the plan requirements be extended to MNM operators? However, the proposed requirements also include some requirements for MNM operators that are not included for coal operators. For example, the proposed provisions require operators of MNM mines to provide MNM miners with periodic medical examinations performed by physicians or other licensed health care professionals (PLHCP) or specialists including a history and physical examination focused on the respiratory system, a chest X-ray, and a spirometry test. The proposed rule also requires a written medical opinion be provided by the PLHCP or specialist to the mine operator regarding the miner's ability to wear a respirator. MSHA seeks comment on the differences between the medical surveillance requirements for MNM operators in this proposed rule and the existing medical surveillance requirements for coal mine operators in § 72.100. MSHA also seeks comment on how best to collect health surveillance data from PLHCPs and specialists to track MNM miners' health, for example how to know when pneumoconiosis cases occur. MSHA seeks comments on alternative approaches to scheduling periodic medical surveillance. MSHs A proposes to require operators to keep medical surveillance information for the duration of a miner's employment plus

[22]Laney, A. Scott, Noemi B. Hall, Laura Reynolds, David J. Blackley, and David N. Weissman. "Low Participation in a Job Transfer Program Designed to Prevent Progression of Pneumoconiosis." *Annals of the American Thoracic Society*. 2023. Retrieved from: atsjournals.org/doi/epdf/10.1513/AnnalsATS.202210-867RL?role=tab.

[23] Hall N.B. Reynolds L. Blackley D.J. *et al.* Submission of mandatory respiratory health examinations among US coal miners participating in the Coal Workers' Health Surveillance Program *Occupational and Environmental Medicine* 2023;**80:**327-332. Retrieved from: oem.bmj.com/content/80/6/327.abstract.

6 months. The Agency seeks comments on this proposed requirement and on any alternative recordkeeping schedules that would be appropriate. Please provide supporting information.

See responses to question 32 for the answer to the majority of the questions asked.

MSHA's proposal for mine operators to keep medical information for the duration of a miner's employment plus six months is not sufficient. MSHA must align their recordkeeping requirements with OSHA's standard on access to employee exposure and medical records (29 CFR 1910.1020). The medical record for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years, except for health insurance claims maintained separately from the employer's medical program, first air records of one-time treatments and subsequent observation of minor scratches, cuts, burns, splinters and the like, and medical records of employees who worked for less than one year as long as they are provided to the employee upon termination of employment.

This ensures that the miner and/or their families will have access to necessary medical information at a later date if it becomes necessary.

34. MSHA's proposed medical surveillance requirements for MNM miners would require operators of MNM mines to provide miners with periodic medical examinations performed by PLHCP or specialists, including a history and physical examination focused on the respiratory system, a chest X-ray, and a spirometry test. MSHA seeks comment on whether use of any new diagnostic technology (*e.g.,* high-resolution computed tomography) for the purposes of medical surveillance should be used.

The AFL-CIO supports the comments made by Dr. Steven Markowitz that are included in the USW comments regarding the diagnostic technology that should be used to protect the health of miners.

35. MSHA's proposed medical surveillance requirements would require that the MNM mine operator provide a mandatory follow-up examination to the miner no later than 3 years after the miner's initial medical examination. If a miner's 3-year follow-up examination shows evidence of a respirable crystalline silica-related disease or decreased lung function, the operator would be required to provide the miner with another mandatory follow-up examination with a specialist within 2 years. For examinations that show evidence of disease or decreased lung function, MSHA seeks comment on how, and to whom, test results should be communicated.

See responses to question 32.

36. MSHA requests comments as to whether the proposed provisions should include a medical removal option for MNM miners who have developed evidence of silica-related disease that is

equivalent to the transfer rights and exposure monitoring provided to coal miners in 30 CFR part 90 (part 90). Under part 90, any coal miner who has evidence of the development of pneumoconiosis based on a chest X-ray or other medical examinations has the option to work in an area of the mine where the average concentration of respirable dust in the mine atmosphere during each shift to which that miner is exposed is continuously maintained at or below the applicable standard. Under part 90, coal miners are entitled to retention of pay rate, future actual wage increases, and future work assignment, shift and respirable dust protection. MSHA seeks comment on whether this medical removal option should be provided to MNM miners. What would be the economic impact of providing MNM miners a medical removal option? Please provide supporting information and data.

The AFL-CIO strongly supports a program similar to the Part 90 program for coal miners being extended to miners in the MNM mining industry in the final rule. These protections would ensure miners who have temporary and permanent health effects due to silica exposure can continue working in healthier parts of the mine without having their pay reduced, without fear of discrimination and termination. This is supported by both the United Mine Workers of America and United Steelworkers.

Medical removal protection like the Part 90 program is vital and a failure to include these protections will put miners at increased risk of material impairment from silica exposure. The importance of medical removal is clearly recognized by MSHA and the industry through the implementation of Part 90 for coal miners and it is just as important for workers in MNM who are exposed to carcinogens, such as silica. The importance of medical removal protections for workers exposed to silica was discussed at length in the OSHA rulemaking record, by many worker advocates, physicians, and others, including recommendations to model programs after MSHA's Part 90 program. (OSHA-2010-0034-3584, Tr. 2541-2544; -OSHA-2010-0034-3588, Tr. 3869-3871; OSHA-2010-0034-3577, Tr. 830-832; OSHA-2010-0034-2175; OSHA-2010-0034-2148; OSHA-2010-0034-2178; OSHA-2010-0034-3424).

Ability to participate in the program should be provided to every miner, regardless of industry, by the medical surveillance provider's determination that the miners should be removed from exposure based upon the results of medical examinations and tests; inability to wear a respirator; evidence of illness, other signs or symptoms of silica-related dysfunction or disease or any other reason deemed medically sufficient by the health care provided; or when the worker is referred to a pulmonary specialist or occupational physician for further evaluation.

MSHA should note that OSHA did not originally include medical removal protection to workers in general industry into the final standard (29 CFR 1910.1053); however, the agency was court ordered to reconsider or further explain provisions for medical

removal protection when a medical professional recommends removal, which is on the agency's regulatory agenda.[24]

Additionally, if the medical surveillance program is not provided by a centralized program that can provide standardized and quality care equivalent to that of CWHSP, the AFL-CIO recommends that MSHA include provisions on multiple physician review modeled after other workplace standards such as OSHA's cadmium standard (29 CFR 1910.1027) The standard should provide for miners to seek a second medical opinion, if they disagree with the medical opinion provided. This is particularly important if the medical opinion is provided by a PLHCP chosen by the mine operator. In the case where two physicians disagree, there shall be a review and examination by a third health care provider. The results of all these examinations shall be provided directly to the miner following the same confidentiality restrictions that limit confidential medical information to the employer. It must also be the obligation of the mine operator to pay for all examinations and reviews.

A medical removal program helps to address the barriers related to fear of retaliation and income loss workers face when choosing to participate in medical surveillance, as further discussed in answer to Question 32.

However, a similar program to Part 90 is not sufficient to adequately address these barriers. There remains significant worker hesitation in program participation in the coal industry, as studies have shown that more than 94% of eligible miners have not exercised their Part 90 rights.[25] MSHA's new Miner Health Matters initiative is a good step forward in creating awareness of the program, but MSHA must consider regulatory approaches to address barriers to participation because encouragement is not enough.[26]

Proposed Respiratory Protection Standard

37. MSHA requests comments concerning the temporary, non-routine use of respirators and whether there are other instances or occupations in which the Agency should allow the use of respirators as a supplemental control. Please discuss any impacts on particular mines and mining conditions and the cost of air-purifying respirators, if applicable. MSHA also solicits comments

[24] NABTU v. OSHA. https://www.cadc.uscourts.gov/internet/opinions.nsf/03C747A5AB141C90852581FE0055A642/$file/16-1105-1710179.pdf

[25] Laney, A. Scott, Noemi B. Hall, Laura Reynolds, David J. Blackley, and David N. Weissman. "Low Participation in a Job Transfer Program Designed to Prevent Progression of Pneumoconiosis." *Annals of the American Thoracic Society*. 2023. Retrieved from: atsjournals.org/doi/epdf/10.1513/AnnalsATS.202210-867RL?role=tab

[26] Mine Safety and Health Administration. Miner Health Matters. Retrieved from: msha.gov/miner-health-matters.

on the proposed requirement that affected miners wear respiratory protection to maintain protection during temporary and non-routine use of respirators. Please provide supporting information.

The AFL-CIO is concerned that the proposed rule, as written, could result in mine operators relying on respiratory protection to reduce exposures—which is expressly prohibited by the Mine Safety and Health Act. The proposal currently allows respirator use when conditions are above the PEL and engineering controls are being developed or is necessary by the nature of work involved. This provision could result in mine operators justifying respirator use more than on a temporary and non-routine basis as many mining operations include constant building, removing, updating and changing of the ventilation systems throughout a mine.

The AFL-CIO, UMWA, and USW have previously commented to MSHA at length about why respiratory protection cannot be relied upon to reduce exposures in mining operations (MSHA-2016-0013-0067; MSHA-2016-0013-0052; MSHA-2016-0013-0066), including that it is expressly stated in Section 202(h) of the Federal Mine Safety and Health Act of 1977 that “[u]se of respirators shall not be substituted for environmental control measures in the active workings.”

MSHA must clearly define the extremely limited circumstances when respiratory protection must be provided to workers. The record already includes information on how mine operators exploit the term temporary work to justify doing limited intervention measures on a permanent basis. Safety and Health Director of the USW, Steve Sallman testified how temporary work is perceived to mine workers represented by the union:

> I have asked our members, how long is temporary? Do you know the response I get? They laugh. Temporary permanent, you mean? Temporary permanent? That's what operators are doing, and then they come back and they say, "I'll tell you about temporary. It's all about low cost/no cost." And you hear that phrase. (Tr. 104, August 10, 2023).

Others have supported our calls of concern about the use of respirators on a temporary and non-routine basis as proposed, including the UMWA (Tr. 95, August 3, 2023), ATS (Tr. p. 59, August 3, 2023) , Stone Mountain Black Lung Clinic (Tr. 66-69, August 3, 2023), National Coalition of Black Lung and Respiratory Disease Clinics (Tr. 33, August 10, 2023), Appalachian Voices (Tr. 49, 59, August 10, 2023), USW (Tr. 104, August 10, 2023), National Jewish Health (Tr. 97, August 21, 2023), and those in the mining community (Tr. 43, 131, August 10, 2023).

We also understand that MSHA has stated that they intend temporary to mean a short period of time, but have not clarified further:

> MSHA intends that temporary use would mean for a limited period of time. That is for a relative short time period. I cannot precisely define temporary as that would depend upon the facts and circumstances surrounding the overexposures as I'm sure some of you would understand. (Tr. 10, August 21, 2023).

We strongly urge MSHA to clarify temporary and non-routine circumstances. This would include outlining multiple aspects of respirator use. For one, describe tasks and circumstances where respirator use is clearly prohibited as it would not be safe for miners to wear respiratory protection or be impossible for it to be done in a safe manner. MSHA should also set duration limits for respirator use, including limiting hours in a shift and not allowing reliance on respiratory protection for consecutive shifts. MSHA should also set concentration thresholds where respirator use is not allowed, for example, high dust concentrations that result in clogged filters during a shift.

It is critical to protecting miner's health to have clearly defined circumstances when respirator use is and is not allowed, not only because the Mine Act prohibits total reliance on respiratory protection as it is not effective and is rarely used under ideal conditions (proper fit, etc.) , but because miners themselves have expressed how difficult it is to wear respiratory protection during work and plenty of evidence confirms that.

> I have worn several different types of masks while mining, anything that could keep me safe in my job, but I'm here to tell you it's difficult to do. We're just now finding out that the masks we wore weren't filtering out the dust. While they were supposed to, they are failing us. When you are in 40 inches of coal, and you are hunched over, the masks don't work too well. The heat, the sweat, makes it almost impossible to breath. Your body suffers from the physical labor of the job. This is me here -- neck surgeries, back surgeries, knee and shoulder surgeries. It adds up over time. You struggle to breathe when dust is all around you, but you've got everything else making your job even tougher. It feels like a pillow is over your face and you can't get it off. John Robinson, Miner, Southwest Virginia Black Lung Association (Tr. 66-67, August 10, 2023).
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> Furthermore, as many miners and advocates will comment, respirator usage is not a feasible solution to ensure safety. Challenges breathing or communicating in intense heat, with loud machinery nearby making an adequate respirator use near impossible to protect from silica dust exposure, to say nothing of recent court cases indicating that mask and respirator manufacturers are not able to

produce a product that will completely protect miners from silica dust. Zach Shrewsbury, West Virginia New Jobs Coalition (Tr. 75, August 10, 2023).

A normal day, like I say, I'm in -- I'm in standup coal. A lot of these guys have referenced to, you know, low seam coal. And when you're bent over, your diaphragm is actually already reduced. You can't breathe the normal -- a standup coal miner has a very big advantage to the low seam coal miner as far as breathing. But I wear the respirator, like I say. The few things that I can tell you about it is it is uncomfortable to wear, but like I say, I do a lot of work with B-bond. It's a form of concrete solution stuff that we smear on the walls. It's got fiberglass in it. I mean, none of that is any good for you, but it's part of my job. Sweating, like I say, you know, you're glasses fog up and, you know, you're supposed to wear your glasses. They don't mind if you take them off for safety to wipe them off, but as far as that, it does cause your glasses to fog up. Your filters will eventually, you know, I mean, the more that you expose it to it, you can almost take them out and peck them against the white tablecloth and you can see what you've packed in there all day. You know what I mean? As you respire, it blows the majority of that out the bottom, but some of that back filters into your filters, which also sluggishly slows down the amount you can suck in. [] So in a safe range it does kind of labor your breathing more by wearing the respirator. Brian Toothman, Miner, UMWA (Tr. 81-83, August 10, 2023).

About six and a half years ago, I went and got my lung test. I found out 10 percent -- was rated at 10 percent. I thought I need to get out of this, and I was one of those guys, I did wear a filtered mask. I did. Religiously I did. I did the best I could. When you're on a belt line or in the return and it's hot and it's sweaty and you're trying to tell your buddy to pull slack, it's hard to communicate. I've pulled it off multiple times. It's not the answer. It's not. I mean, it does help, but it's not the answer. Tim Toothman, Miner, UMWA (Tr. 85, August 10, 2023).

And you see these guys here today, and, you know, it's -- we do need to bring the -- bring the levels down, the exposure levels down, but wearing a dust mask -- or wearing a mask is not -- it's not the great answer. I mean, I've filled in on belts and stuff a couple of times and wearing them, like rock dusting. It's hard to breathe. You can't communicate with them. I've been around guys who is wearing a mask and I can't understand a word they're saying. I've got to pull them aside and like, "take your mask off, so I can -- so I can hear you." Robert Henry, Miner, UMWA (Tr. 87-88, August 10, 2023).

> And as far as him speaking about the mask, everyone -- when you're in 40 inches of coal, that means you're down here bolting, you've got all the hoses on the machine, and it can get from 80 degrees to over 120 degrees. You can't breathe. You're lucky to see your partner on the other side, and so you can't communicate really. It's hard. I've tried to wear it. I can't. And that's not going to be the answer. Robert Cash, Miner, UMWA (Tr. 89, August 10, 2023).
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> You say, well, we'll get you to wear a mask. Well, me as a human, I can't breathe to start with because I've got black lung. How am I going to breathe through a straw, then? William Willis, Miner, UMWA (Tr. 119, August 10, 2023).

The burden of proof should fall on operators to submit scenarios where respirators are necessary under limited circumstances. If MSHA does not have evidence respirators are needed for a particular task, they should not be permitted. Where respirators would be permitted in very limited circumstances, MSHA should develop a list of procedural requirements the mine operators need to follow and require documented justification for their use. Respirator use in a mine should be a variance from normal activity and should be treated like one.

38. MSHA is proposing to incorporate by reference ASTM F3387–19, published in 2019. Whenever respiratory protective equipment is needed, mine operators would be required to follow practices for program administration, standard operating procedures, medical evaluations, respirator selection, training, fit testing, and maintenance, inspection, and storage in accordance with the requirements of ASTM F3387–19. Beyond these elements, MSHA is proposing to provide operators the flexibility to select the elements in ASTM F3387–19 that are applicable to their practices of respirator use at their mines. Should mine operators have the flexibility to choose the ASTM F3387–19 elements that are appropriate for their mine-specific hazards because the need for respirators may vary due to the variability of mining processes, activities, airborne hazards, and commodities mined? What, specifically, do you think should factor into the determination of what is applicable? MSHA seeks comments on its proposed approach and the impact it would have on mine operators and on miners' life and health.

The AFL-CIO supports updating the respiratory protection program protection to something more current that is both strong and comprehensive. The ASTM F3387-19 standard is strong and comprehensive and we support its use in mining. We also encourage MSHA to promulgate its own respiratory protection standard, similar to the OSHA standard (29 CFR 1910.134).

However, mine operators should not be allowed to determine which parts of a standard they will follow. At a minimum, mine operators must be required to follow the practices

of program administration, standard operating procedures, medical evaluations, respirator selection, training, fit testing, and maintenance, inspection, and storage. These help to address the significant limitations of respiratory protection. Respirators and other forms of personal protective equipment do nothing to address bystander exposure and leave wide variability in the times they are worn, their fit, working conditions like temperature, communication between workers, and the ability of workers to do their job tasks without compromising the fit and efficacy of the respirator. The limitations of respirators are thoroughly explained with supportive evidence in our previous comments on OSHA's silica standard. See OSHA-2010-0034-4204, pp. 69-72. Respirators and other PPE often create a false sense of protection to workers who believe they are wearing them properly and a false sense of the reality that the responsibility to ensure a safe workplace is on the worker, not the employer.

Further, baseline risk assessments cannot be performed using respirators; in other words, respirators cannot be taken into account when assessing risk to silica exposure. This is consistent with longstanding OSHA and industrial hygiene policy and practice.

Recordkeeping Requirements

40. MSHA is proposing to require recordkeeping for records of evaluations, records of samplings, records of corrective actions, and written determination records received from a PLHCP. The proposed rule's recordkeeping requirements are discussed in the Section-by-Section Analysis section of this Preamble. MSHA seeks comment on the utility of these recordkeeping requirements as well as the costs of making and maintaining these records. Please provide supporting information.

MSHA must require mine operators to keep records for longer than the proposed time periods and align their recordkeeping requirements with OSHA's standard on access to employee exposure and medical records (29 CFR 1910.1020). This includes medical records further expanded upon in responses to question 33.

The records of evaluations, records of samplings, and records of corrective actions must be preserved and maintained for at least 30 years. Employers covered by OSHA are already required to keep records for this length of time and there is no reason why MSHA covered employers should not also preserve and maintain records. This is particularly feasible for mine operators to do in the current age of technology where most records are created, maintained and preserved electronically.

Maintaining records helps establish a pattern of exposure levels and their relationship to corrective actions taken and evaluations. Retaining these records for only two years is

not sufficient to establish a pattern or provide critical information needed in a risk assessment. This is particularly important for MNM mines that are inspected less frequently than coal mines. Additionally, this information will be invaluable for miners who are diagnosed with a silica-related health effect.

Training Requirements

41. MSHA requests the views and recommendations of stakeholders regarding whether training requirements for miners should be included in proposed part 60. Please provide supporting information and data.

Training is an essential component of workplace silica prevention program. All miners should receive awareness training on the health effects of silica, tasks that could result in exposure, task specific training on engineering and administrative controls and procedures associated with the miner's tasks that are being used to protect them, the purpose of medical surveillance, any medical removal protection provisions, the use of personal protective equipment and limitations of PPE, and other requirements under the standard.

Additionally, miners should be provided with refresher training periodically, and whenever new control measures are introduced in order to reduce dust concentrations.

The standard must also include a specific requirement that the training be provided in a language and manner that the employee can understand and delivered in person and through an interactive manner with the ability for miners to ask questions.

The importance of quality and interactive training in saving lives and protecting health was expressed by Steve Sallman, representing the United Steelworkers:

> There is also another part of administrative control, which is training. It's still an important administrative control. Miners and their representatives need to be trained on all elements of this proposed rule or final rule, and it should also include anti-retaliation provisions. People, when they go to workplace, they signed a job application to provide their labor, not their life, not their limbs, and no one should have to fear retaliation for being able to stand up for what's right and what's wrong. I also want to talk about under administrative controls we're seeing this in our -- from our members. We've got green training green. And what we mean by that is new training new. There is new people working with new. And when you heard about some of the senior workers talking about how we've got to train the newer people coming in, so that they don't have to worry about those exposures and what their life will be like when they retire, it's important to understand how important training is. And when an MSHA investigator comes,

> don't be just satisfied with looking at a bunch of signature sheets that somebody went through training. In one of our fatality investigations, this is what I learned from our member who I feel was communicating with me from the grave, and here's what I have learned from her. And her name was Lakiya Stallings, and this is what was in my head. Signature doesn't mean compliance. It means attendance. Signature doesn't mean compliance. It means attendance. And if all we're doing is training workers for a signature sheet, so when the government comes in to audit and they grab some signature sheet, go talk to the workers, go talk to the miners, and find out what's really going on. We've got to be training for good safety and health, not just to gather a bunch of signatures. (Tr. 104-105, August 10, 2023).

Conforming Changes

42. MSHA requests comments on the proposed conforming changes to remove the reduced coal dust standard from 30 CFR and the potential impact on coal mines and miners and on whether to retain the reduced standard for part 90 miners. Please provide supporting information.

43. MSHA is not proposing to adopt a similar approach as the OSHA Table 1 for the construction industry, where MSHA would prescribe specific exposure control methods for task-based work practices when working with materials containing respirable crystalline silica. See 29 CFR 1926.1153(c)(1). MSHA requests comments on specific tasks and exposure control methods appropriate for a Table 1-approach for the mining industry that also would adequately protect miners from risk of exposure to respirable crystalline silica. Please provide specific rationale and supporting information, including data on how such an approach would be implemented.

We do not support MSHA considering an approach similar to OSHA's Table 1 to protect all miners from silica exposure at this time. While OSHA's Table 1 has been very successful at reducing exposures and changing the culture around reducing dust in the construction industry; it is not a protective or feasible approach for most mining operations.

The approach currently proposed by MSHA to require mine operators to assess the exposure risks to workers, routinely perform exposure monitoring, and control the exposures found using the hierarchy of controls below the PEL is the appropriate approach for the mining industry. Nor would it benefit workers to delay the rule to create a quasi-Table 1 for a limited number of tasks that may be relevant in the mining industry, when the traditional industrial hygiene approach will significantly reduce the risk to miners.

Conclusion

Thousands of miners are exposed to silica dust at work, placing them at serious risk of disease and death. The current MSHA regulations for silica are woefully outdated (coal) or do not exist (MNM), leaving miners at significant risk of material impairment, resulting in the increased cases of silica-related diseases seen in miners, especially young miners in recent years.

The proposed MSHA respirable crystalline silica standard is long overdue and will significantly reduce the risk of silica disease. The proposed standards are based on extensive evidence that demonstrates the need for the standard and incorporates well-established control and protective measures that are technologically and economically feasible in order to protect miners from silica-related death and disease.

MSHA has recognized that, even under controlled exposures permitted by the proposed standard, miners will still face a significant risk of harm. This harm is additionally mitigated by other provisions in the rule including medical surveillance and training. Yet, there are several provisions in the rule that can be strengthened to reduce exposures and reduce the risk of death and disease including exposure monitoring, respiratory protection, corrective actions, medical surveillance and removal protections, and recordkeeping.

Miners have waited too long for protection from deadly silica dust. The AFL-CIO urges MSHA to move expeditiously to complete this rulemaking and protect coal, MNM miners from unnecessary disease and death due to silica exposures at work.

List of Attachments to MSHA-2023-0001
Submitted by AFL-CIO

1. American College of Occupational and Environmental Medicine. *Confidentiality of Medical Information in the Workplace.* November 6, 2012.
2. International Council of Mining and Metals. *Considerations for the Adoption of Real-time Particulate Monitoring.* January 2022.
3. United Mine Workers RFI Comments: MSHA-2016-0013-0052
4. United Mine Workers and United Steel Workers Joint Petition
5. Testimony of Cecil E. Roberts before the United States House of Representatives Committee on Education and Labor Subcommittee on Workforce Protections
6. Supplemental Testimony regarding the June 20, 2019 Hearing "Breathless and Betrayed" before the United States House of Representatives Committee on Education and Labor Subcommittee on Workforce Protections Cecil E. Roberts, President United Mine Workers of America, International Union
7. United Steel Workers RFI Comments: MSHA-2016-0013-0066
8. AFL-CIO RFI Comments: MSHA-2016-0013-0067
9. Occupational Exposure Limits in mg/m3 8 hours TWA – Respirable dust – in EU + Norway & Switzerland
10. Canada, Manitoba. Silica standard. Part 36: Chemical and biological substances. Retrieved 2014.
11. Canada, Newfoundland. Silica code of practice. 2006.
12. Canada, Nova Scotia. Summary of silica standard. Silica exposure. Retrieved 2014.
13. Scientific Committee on Occupational Exposure Limits (SCOEL). Recommendations for Silica, Crystalline (respirable dust). SUM 94. 2003.
14. NORMA Oficial Mexicana NOM-010-STPS-2014, Agentes quimicos contaminantes del ambiente laboral-Reconoimiento, evaliacion y control. 2014. Informal English translation of specific sections attached.
15. AFL-CIO Comments to OSHA: OSHA-2010-0034-2256
16. AFL-CIO Post-hearing Brief to OSHA: OSHA-2010-0034-4204
17. Frank Mirer Comments to OSHA: OSHA-2010-0034-2256
18. Ruth Ruttenburg Comments to OSHA: OSHA-2010-0034-2256