Comments of the United Mine Workers of America
Proposed Rule Lowering Miners' Exposure:
Respirable Crystalline Silica and Improving Respiratory Protection
Docket No. MSHA 2023-0001-0002
RIN 1219-AB35
September 10, 2023

The Mine Safety and Health Administration (MSHA) proposes to amend its existing standards to better protect miners against occupational exposure to respirable crystalline silica, a carcinogenic hazard, and to improve respiratory protection for all airborne hazards. MSHA has preliminarily determined that under the Agency's existing standards, miners at metal and nonmetal (MNM) mines and coal mines face a risk of material impairment of health or functional capacity from exposure to respirable crystalline silica.

MSHA proposes to set the permissible exposure limit of respirable crystalline silica at 50 micrograms per cubic meter of air ($\mu g/m^3$) for a full shift exposure, calculated as an 8-hour time-weighted average, for all miners. MSHA's proposal would also include other requirements to protect miner health, such as exposure sampling, corrective actions to be taken when miner exposure exceeds the permissible exposure limit, and medical surveillance for metal and nonmetal miners. Furthermore, the proposal would replace existing requirements for respiratory protection and incorporate by reference ASTM F3387–19 Standard Practice for Respiratory Protection.

The United Mine Workers of America (UMWA) in response to the proposed rule regarding respirable crystalline silica and improving respiratory protection offers the attached comments in response.

We would like to thank the current leadership at MSHA for finally releasing a proposed rule on silica. This rule, if finalized, will lower miners' exposure to silica as well as afford MNM miners similar medical surveillance as coal miners currently have.

We have known for years that rising levels of silica in mine atmospheres were causing a dramatic increase in progressive massive fibrosis. The UMWA has fought for years to push the Agency to act on this information and create a new regulatory standard on silica that is separate and distinct from the Respirable Dust Standard, that lowers the exposure limit, and that is enforceable in accordance with all other standards established by the Agency. President Roberts first raised this issue on Capitol Hill in the wake of the Upper Big Branch disaster in 2010 and testified directly to it in 2019.

Workers in other industries have long been protected from excessive exposure to silica dust, but miners were not, even though they work in an environment where silica dust is encountered daily. It was a travesty that the government had never taken steps to protect them. But now it finally has and we applaud this Administration and the current MSHA leadership for the hard work they put into this rule.

We would like to highlight MSHA's Preliminary Risk Analysis (PRA) within the proposed rule which states that for those miners working only under the proposed Permissible Exposure Limit (PEL), MSHA estimates that the proposed rule would result in a total of 799 lifetime avoided deaths (63 in coal and 736 in MNM mines) and 2,809 lifetime avoided morbidity cases (244 in coal and 2,566 in MNM mines) over a 60-year period. MSHA also expects the proposed rule to reduce lifetime mortality risk due specifically to silica exposures by 9.5 percent and to reduce silicosis morbidity risk by 41.9 percent. The latter statistic is particularly important to coal miners given surveillance findings noted by the National Academies of Sciences, Engineering, and Medicine that severe pneumoconiosis where respirable crystalline silica is likely an important contributor is presenting in relatively young miners, sometimes in their late 30's and early 40's.

Of course, no regulation is effective without proper enforcement. Once the rule is finalized and in effect, the Agency must ensure that mine operators follow the rule and penalize those who violate it. We must all remain vigilant until the day comes when no miner contracts this disease and we can finally say we have wiped out Black Lung for good.

MSHA has requested comments on the proposed rule and all relevant issues, including the review and conclusions of the health effects discussion, preliminary risk analysis, feasibility analysis, preliminary regulatory impact analysis and regulatory alternatives, and preliminary regulatory flexibility analysis.

The Union would like to thank the Agency for allowing it to comment on this proposed rule and asks that MSHA act quickly and diligently in addressing this issue. Should the Agency need additional information or require clarification, please contact the United Mine Workers of America.

MSHA has requested that commenters organize their comments, to the extent possible, around the following numbered questions.

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.

These health effects mentioned are the primary effects to be concerned about for which there is sufficient data to model. The UMWA is supportive of MSHA's research and findings.

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?

MSHA is using coal mine dust data from 2016-2021. This was a historically low period for quartz levels in coal mining. If you incorporate data from 2005-2015 (similar to MNM), you will find that there was a far higher rate of samples with levels > 100 µg/m^3. The UMWA believes that the reduction in deaths and cases of silicosis for coal mines with a PEL of 50 µ/m^3 would be greater than the risk analysis shows.

3. MSHA's risk analysis of lung cancer mortality uses the exposure-response model from Miller and MacCalman (2010) instead of Steenland et al. (2001a), on which OSHA's risk assessment of lung cancer mortality was based. MSHA uses Miller and MacCalman (2010) for several reasons. First, it covers coal mining-specific cohort large enough (with 45,000 miners) to provide adequate statistical power to detect low levels of risk, and it covers an extended follow-up period (1959–2006). Second, the study provided data on cumulative exposure of cohort members and adjusted for or addressed confounders such as smoking and exposure to other carcinogens. Finally, it developed quantitative assessments of exposure-response relationships using appropriate statistical models or otherwise provided sufficient information that permitted MSHA to do so. The Agency is requesting comment on MSHA's reliance on the Miller and MacCalman (2010) study in assessing lung cancer mortality. Please provide any other studies or information that MSHA should take into account in determining the risk of lung cancer mortality among miners.

The UMWA is supportive of MSHA's use of the Miller and MacCalman (2010) study in assessing lung cancer mortality

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.

The UMWA agrees with the technological feasibility of the rule. However, we do have concerns about the feasibility of respirators that we discuss in more detail within the respirator section of our comments below.

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 UMWA agrees with the technological feasibility of the medical surveillance requirements for MNM miners.

Preliminary Regulatory Impact Analysis and Regulatory Alternatives

6. In the standalone background document entitled " *Preliminary Regulatory Impact Analysis* " and as summarized in Section IX. Summary of Preliminary Regulatory Impact Analysis and Regulatory Alternatives of this preamble, MSHA developed estimated costs of compliance with the proposed rule and estimated monetized benefits associated with averted cases of respirable crystalline silica-related diseases. MSHA requests comments on the methodologies, baseline, assumptions, and estimates presented in the Preliminary Regulatory Impact Analysis. Please provide any data or quantitative information that may be useful in evaluating the estimated costs and benefits associated with the proposed rule.

The UMWA agrees with the Regulatory Impact Analysis.

7. MSHA considered two regulatory alternatives in developing the proposed rule discussed in Section IX. Summary of Preliminary Regulatory Impact Analysis and Regulatory Alternatives. In the regulatory alternatives presented, MSHA discussed alternatives to the proposed PEL, action level, sampling requirements, and semi-annual evaluations. MSHA requests comments on these and other regulatory alternatives and information on any other alternatives that the Agency should consider, including different average working-life spans and different average shift lengths. Please provide supporting information about how these alternatives could affect miners' protection from respirable crystalline silica exposure and affect mine operators' costs.

Initial Regulatory Flexibility Analysis

8. As summarized in Section X. Initial Regulatory Flexibility Analysis of this preamble, MSHA examined the impact of the proposed rule on small mines in accordance with the Regulatory Flexibility Act. MSHA estimated that small-entity controllers would be expected to incur, on average, additional regulatory costs equaling approximately 0.122 percent of their revenues (or $1,220 for every $1 million in revenues). MSHA is interested in how the proposed rule would affect small mines, including their ability to comply with the proposed requirements. Please provide information and data that supports your response. If you operate a small mine, please provide any projected impacts of the proposal on your mine, including the specific rationale supporting your projections.

The UMWA agrees with the estimated cost analysis and believes the benefits to workers' health would far outweigh the cost.

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.

The UMWA is pleased to see that the proposed rule will cover both MNM and coal. However, we feel as though doing so has caused the rule to become watered down for coal miners. It is clear to us that MSHA has made the proposed rule less protective in order to reduce costs for smaller MNM operations.

The Agency should create a coal-specific section that requires much more sampling than the proposed frequency of every three months and utilizes the NIOSH end-of-shift Fourier transform infrared spectroscopy (FTIR) monitor, and requires MSHA to conduct the sampling rather than the operator.

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 UMWA is supportive of the proposed standard.

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.

The UMWA is supportive of the standard. The proposed action level of 25 µg/m^3, (one-half of the proposed PEL) is consistent with NIOSH research findings and other MSHA standards. According to NIOSH research, wherever exposure measurements are above one-half the PEL, the employer cannot be reasonably confident that the employee is not exposed to levels above the PEL on days when no measurements are taken (NIOSH 1975).

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 proposed rule reads as though "objective data" is limited to MSHA surveys or NIOSH studies. Would operator studies or operator-funded academic studies be deemed "objective" for baseline? Or would this be on a case-by-case basis? Operators have pushed bogus studies in the past such as the ones intended to discredit the respirable dust rule by claiming rock dust interference. The rule should be clarified as to what is not "objective data". We have also seen in various industries that academics can be bought off, and unless peer-reviewed, it is dubious to consider academic studies paid for by the industry to be necessarily "objective" data.

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 UMWA is supportive of the standard. The proposed PEL is consistent with NIOSH's recommended exposure limit for workers. NIOSH recommended in 1974 that occupational exposure to crystalline silica be controlled so that "no worker is exposed to a TWA of silica greater than 50 µg/m^3 as determined by a full-shift sample for up to a 10-hour workday over a 40-hour workweek" (NIOSH 1974).

14. MSHA is proposing a PEL of 50 µg/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.

MSHA should establish some type of 103(i)/silica spot inspection program. The Agency could, for example, use criteria such as if the mine has more than *x* workers and/or samples

above the action level or produces *y* tons of coal where operations are above the action level then they would be subject to increased silica monitoring.

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.

The UMWA does not in any way support worker rotation as an administrative control for respirable dust. As MSHA notes in their section-by-section analysis, worker rotation may be appropriate to minimize musculoskeletal stress, it is not acceptable for work involving carcinogens or respirable dust. This only exposes more miners to silica instead of ensuring the mine atmosphere is safe to breathe.

The UMWA agrees with MSHA's assessment that the rotation of miners is not consistent with the Agency's regulatory framework or its mandate under the Mine Act. The rotation of miners may, if permitted, reduce the amount of time each miner is exposed to the hazard by rotating miners out of the task faster. However, it would increase the number of miners working in high-exposure tasks or areas and would lead to increased material impairment of health or functional capacity for the additional miners. The UMWA believes this to be common sense.

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 UMWA supports this standard and believes that operators should already be doing this in accordance with the law and their ventilation plans to ensure that miners are not being exposed to dangerous levels of diesel fumes or respirable 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 UMWA supports this standard. However, we feel that MSHA should be targeting high silica-cutting situations in coal mines that are typically not monitored as they should be, such as cutting overcasts, belt channels, slopes, and other outby construction work where miners are cutting mostly rock. These types of activities normally do not have the ventilation that a production section would. Nor do they have the oversight or dust sampling that they should in order to ensure that miners are not breathing dangerous levels of silica. Operators should be required to report when this type of work is going to be performed to the Agency and the Agency should sample the workers that are performing

this work. We believe that these situations are some of the leading causes of the increased silica we are finding in miners' lungs today and the proposed rule does not address these situations.

Quarterly operator monitoring is woefully insufficient. Especially compared to coal dust monitoring that is conducted 15 consecutive shifts at 80% of normal production for designated occupations and 15 shifts of Other Designated Occupations (ODO). It seems misplaced that silica is 20 times more toxic than coal dust, but under the proposed rule, would be monitored at 1/15th the time.

Also, the rule does not specify whether or when MSHA will issue any citations. It is also unclear what extent of noncompliance will trigger monetary penalties or withdrawal orders for violations of the silica PEL. Unlike the 2014 coal mine dust rule, there are no specified thresholds or criteria for the issuance of citations or other enforcement measures. The proposed rule does not set forth any criteria or thresholds for issuing penalties or taking any other escalated enforcement, such as withdrawing miners in the event that an operator does not implement the proposed corrective action.

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 UMWA's position on dust sampling has always been the same. MSHA must assume the responsibility for conducting all respirable dust sampling. This will ensure that mine operators are in compliance with all aspects of the proposed rule. The standard must require that a Representative of the Secretary be present for all such sampling for the entire duration of the sampling process. Especially given the gravimetric sampler's history and vulnerability to be cheated.

The proposed rule, as currently written, is vulnerable to being gamed. For the rule to not require any MSHA sampling outside of the currently required quarterly sampling, in no way reflects the UMWA's position or President Roberts's testimony to Congress in 2019.

MSHA must also be diligent in ensuring that the dust samples taken are actually from the miners' typical mining activities. MSHA should interview miners and review past production reports if necessary to ensure that the operator is not having the miners work in a less dusty environment than they usually do when the samples are taken.

Also, each time that an operator submits a proposed change to its ventilation, roof, or dust control plans, MSHA should assess the risk of elevated silica exposure. If the proposed

change to the plans would elevate the risk of silica exposure, MSHA should require periodic sampling as a condition of approving the proposed change to the relevant plan. MSHA should reserve the authority to require periodic sampling at any time to reflect such changing conditions in the mine.

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.

Facilities that operate seasonally or intermittently should notify MSHA when they begin and end operations. MSHA should sample miners who are exposed to silica dust to ensure that the levels of silica those miners are breathing, regardless of that facility's operational schedule, are in compliance with the rule.

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 UMWA supports the Agency performing baseline sampling within 180 days after the rule becomes effective. However, operators should not be exempt from sampling based on the results of the baseline sample. Also, MSHA should be conducting the sampling, not the operator especially given the gravimetric samplers' vulnerability to being gamed.

The Agency should also require operators to utilize NIOSH's FTIR end-of-shift monitor. While the device may not work for MNM mines due to interferences, it should be utilized for coal mines. The fact is you can get a lot closer to near real-time for monitoring silica instead of waiting for results to return from a lab. It is much better to have 15 samples during normal production/development each quarter, than it is to have 1 every quarter sent off to a lab where the results are arguably more precise. The argument that the end-of-shift monitor is not tamper-proof and therefore should not be used is simply laughable. The gravimetric monitors are equally susceptible based on where you hang them. NIOSH and private sector companies are making great strides in the device. MSHA must become an active participant in the development of this technology in order to ensure its effectiveness and to facilitate its rapid use in the industry.

The proposed rule must recognize the primacy of new technology. Therefore, it must be written to permit the seamless deployment of an end-of-shift or real-time silica sampling device while, at the same time, effecting the retirement of the gravimetric device.

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.

The UMWA completely disagrees. Operators should be constantly evaluating and notify the Agency of any changes in production, processes, engineering controls, personnel, administrative controls, or other factors that could increase the amount of silica that miners breathe. These evaluations should not just occur every six months. This creates the possibility for miners to be exposed to dangerous levels of silica above the action or exposure limit for up to six months.

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.

The UMWA agrees that most occupations in the mining industry would "reasonably be expected" to be exposed to silica and therefore meet the threshold for baseline sampling and that some miners may not be reasonably expected to be exposed to silica, depending on the occupation.

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.

The UMWA does not agree that operators should be exempt from sampling regardless of the baseline sampling results or past sampling results. If the Agency does not sample miners, how can it ensure that miners are protected from unhealthy levels of silica? All miners who are exposed to silica dust, regardless of the results from past samples, should be sampled on a regular basis to ensure that they are protected and that the operator is complying with the standard.

Would the Agency use the same reasoning for coal dust sampling? If an operator has samples showing low levels of coal dust, would the Agency believe that those miners no longer need sampling? This is, of course, ridiculous.

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 UMWA does not believe that sampling miners every three months will ensure that those miners are not exposed to unhealthy and dangerous levels of silica. MSHA should conduct dust sampling on all miners who are exposed to silica dust at least monthly in order to ensure that miners are not exposed to levels of silica above the action or exposure limit. The proposed rule, as written, could allow miners to be exposed to dangerous levels of silica dust for up to three months at a time. The fact that the frequency of silica sampling in this proposed rule is 6% to 20% of the monitoring frequency for respirable coal dust even though silica is 20 times more toxic than coal dust is nonsensical.

The rule should make it clear that miners or miners' representatives must have the right to request, as part of any (baseline, periodic or corrective action) sampling, that the operator takes samples of specific miners, specified occupations or designated areas, and to make such results available.

The UMWA also does not agree that operators should not be subject to sampling regardless of the baseline sampling results or past sampling results. If the Agency does not sample miners, how can it ensure that miners are protected from unhealthy levels of silica? All miners who are exposed to silica dust, regardless of the results from past samples, should be sampled on a regular basis to ensure that they are protected and that the operator is complying with the standard especially using the gravimetric sampling devices which are more prone to tampering and cheating than the continuous personal dust monitors. The gravimetric samplers were often carried by company personnel in outby areas of the mine or hung in cleaner intake air entries. This not only placed miners' lives at risk, it further eroded the credibility of the program and the miners' faith in MSHA. President Roberts laid out many cases of this in his June 20, 2019 testimony before Congress.

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.

Please refer to our response to number 23.

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.

Please refer to our response to number 21.

27. MSHA is proposing that miners' exposures are measured using personal breathing-zone air samples for MNM operations and occupational environmental samples collected in accordance with §§ 70.201(c), 71.201(b), or 90.201(b) for coal operations. MSHA requests comments on this proposal. Please provide supporting information and data.

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.

The UMWA is supportive of the standard.

29. MSHA is proposing that mine operators use laboratories accredited to ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories," where the accreditation has been issued by a body that is compliant with ISO/IEC 17011 "Conformity assessment—requirements for accreditation bodies accrediting conformity assessment bodies." MSHA solicits comments on this proposal. Are there additional requirements that should be incorporated into this proposal to ensure accurate sample analysis methods? Please provide supporting information and data.

When these results are transmitted to the operator, the rule should require these results are also transmitted to MSHA at the same time. This will improve assurance that data is not lost or discarded, and alert MSHA when there is a problem. MSHA already receives data from the CPDM under the respirable coal dust rule, and it should expand the agency's capacity to receive lab results for silica.

30. MSHA seeks comments on the proposal that mine operators ensure that laboratories evaluate all respirable crystalline silica samples using respirable crystalline silica analytical methods specified by MSHA, NIOSH, or OSHA. Are there additional requirements that should be incorporated into this proposal to ensure accurate sample analysis? Please provide supporting information and data.

The UMWA is supportive of the standard.

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.

Please see our response to number 20.

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 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 UMWA supports the Agency requiring operators to provide MNM miners with similar medical surveillance to that which coal miners have under 30 CFR 72.100. The proposed medical surveillance program can help identify early signs of silica-related diseases, assist MNM miners in protecting their health, and lower the risk that MNM miners become sick due to occupational exposure to silica.

Although the proposed rule states that only the employee and their doctor get these results, pre-employment physicals are usually retained by employers, so they are aware if they are hiring someone with a condition to start with. That is important from a liability standpoint if someone develops an occupational disease in 3 years, but it was because they had other employment with exposure.

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

MSHA should work with NIOSH in expanding the Coal Workers Health Surveillance Program's mobile unit to screen MNM miners as well or create a new Health Surveillance Program mobile units targeting MNM miners.

Currently, the screening records for coal miners go to NIOSH. However, for MNM miners, those screenings would go to the healthcare provider. This could be an issue based on what doctor they go to. If the operator is picking the doctor who does the screening, this could lead to issues of biased screenings or leaked medical information. This gives more reason for MSHA to work with NIOSH on expanding their program to include MNM miners.

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 UMWA feels that we should not use CT scans because they're not as readily available and the expense of doing them is greater. Diffusion capacity testing as part of pulmonary function tests could be considered, but this is also not as widely available as spirometry.

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.

All medical records and results should be kept strictly confidential and only be provided to the miner and the miner's physician (if he or she chooses to do so). This is to ensure the miner's trust in the program as well as to protect the miner from any possible retaliation for him or her being seen as a liability to the company. Without this protection, the program will be doomed from the start. Also, see our comments for No. 33.

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 UMWA is very supportive of a program for MNM miners similar to the Part 90 Program offered to coal miners. Under Part 90, coal miners who have developed black lung can exercise rights that allow them to continue working in areas of less exposure without having their pay reduced. There are also protections against discrimination, including termination.

All miners, regardless of the commodity they mine, should have these same rights and protections if they develop an occupational lung disease.

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 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.

This is in direct contravention of explicit directives from Congress. The use of respirators, or any other type of Personal Protective Equipment ("PPE") as a mandatory administrative control, is strictly prohibited by both the 1969 Coal Mine Safety and Health Act (Coal Act) and the Federal Mine Safety and Health Act of 1977 (Mine Act or Act). The legislative history of the Coal Act states, "The committee bill expressly prohibits, as a general policy, the use of personal protective devices, including respirators, as a substitute for environmental control measures. Both the Public Health Services and the Bureau of Mines consider such devices to be neither desirable nor practicable for the rigorous physical operations involved in coal mining." Congress also states that personal respirators should not be used as a substitute for environmental controls because they are "extremely uncomfortable to the workers and impracticable for the type of operations [they] must generally perform." In considering the 1969 Coal Act, the Senate Committee stated, "the average dust level at any job, for any miner, in any active working place during each and every shift shall be no greater than the standard."

The Mine Act is also very clear regarding the requirements for protecting miners from exposure to respirable dust. Section 201(b) of the Act states, "It is the purpose of this title to provide, to the greatest extent possible, that the working conditions in each underground coal mine are sufficiently free of respirable dust concentrations in the mine atmosphere to permit each miner the opportunity to work underground during the period of his entire adult working life without incurring any disability from pneumoconiosis or any other

occupation-related disease during or at the end of such period." The Mine Act states that MSHA is required to ensure that the Mine Atmosphere is free from dust to the levels prescribed in the Act or by regulation. Congress was well aware, at the time of the writing of the Mine Act, that some operators would seek to circumvent this standard using respirators and sought to eliminate that possibility. Section 202(h) of the Mine Act addresses that concern by stating, "[u]se of respirators shall not be substituted for environmental control measures in the active workings."

The Agency does not possess the authority to override the plain language of the statute as written by Congress. MSHA is likewise prohibited from repealing or diminishing a mandatory health standard. Any attempt to diminish the protections afforded by the Mine Act or by regulations promulgated under the Act violates Section 101(a)(9) of the Mine Act, which provides in relevant part: "No mandatory health or safety standard promulgated under this title shall reduce the protection afforded miners by an existing mandatory health or safety standard." The Union recognizes, as MSHA must, that any effort to mitigate miners' exposure to excessive levels of dust using mandatory Administrative Controls is plainly and strictly prohibited by law. Based on the mandatory legal standards established by Congress in 1977, any further discussion regarding the use of any type of personal protective equipment to reduce dust exposure would be improper. Congress demanded clean air, no exceptions.

Allowing the use of respirators to comply with any dust standard is an illegal way to achieve compliance and the only reason for it would be to lessen the regulatory burden on mine operators. The Union has made its position clear on this matter. Should an operator fail to meet the standards required by law to protect the nation's miners, they should no longer be permitted to remain in the industry.

Permitting such action would open the door for the Agency to promulgate a standard in the future that would reduce or eliminate engineering and environmental methods as the primary methods of controlling respirable coal mine dust. The UMWA completely and emphatically rejects this attempt to circumvent the intent of Congress and demands that MSHA does so as well.

There are a range of problems associated with the use of respirators that effectively prohibit in-mine use. In 1969, Congress found that the type of work performed in the mining industry was not compatible with the use of respirators. Ensuring the device is donned properly and retains a continuous seal around the miners' nose and mouth is extremely difficult, if not impossible. This is especially true with miners who have facial hair. It is the Union's experience that miners are often not adequately trained in the selection or use of respirators. These factors will inevitably lead miners to believe they are being protected when in fact they are not.

The perfect example of this false sense of protection was the basis for a lawsuit by two miners against the 3M Company ("3M") in 2019. The miners sued after developing black lung disease even though they wore respirators produced by 3M for use in the mining

industry. The jury determined that the miners had developed black lung disease largely because the respirators were ineffective and did not protect them from breathing in excessive amounts of respirable coal mine dust. The jury found that the respirators were in such a "defective and unreasonably dangerous condition" that 3M should not have marketed and sold the equipment for mining use. A Kentucky jury awarded the miners $67.5 million in damages. There have been numerous suits concerning defective respirators in recent years, however, monetary settlements cannot compensate these individuals for the damage to their lungs and the shortening of their lives.

MSHA must continue to recognize engineering controls as the primary means to eliminate respirable dust within the mine atmosphere and achieve compliance. The UMWA supports the voluntary use of personal protective equipment as a supplement to engineering controls. However, the Union deems the mandatory use of respirators to be illegal and beyond MSHA's authority. The use of respirators as a means of complying with the standard is contrary to the Mine Act, provides miners with a false sense of protection, and is not feasible for all miners.

A safer approach would be for MSHA to removed miners from the area until the atmosphere in that area is safe. Rather than having miners use a respirator in an unsafe and unhealthy atmosphere.

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 UMWA is supportive of the ASTM standard.

39. ASTM F3387–19 identifies a variety of respiratory protection practice elements. MSHA proposes to require certain minimally acceptable program elements: program administration; standard operating procedures; medical evaluations; respirator selection; training; fit testing; and maintenance, inspection, and storage. Please comment on whether these are the appropriate elements to require, or if there are any other elements of ASTM F3387–19 that should be minimally included in any respiratory protection program. MSHA also welcomes comments on whether it would be appropriate to require the standard in its entirety. Please identify those elements that would ensure that approved respirators are selected, fitted, used, cleaned, and maintained so that the life and health of miners are safeguarded. MSHA also seeks data and

information on the impact these changes would have on mine operators, especially smaller operators. What would be the economic impact if all or parts of ASTM F3387–19 were required respirator program elements? Please be specific with your response and provide details on respirator use at your mine to include information and data on mining processes and environmental conditions; level of exposures to airborne contaminants; frequency and duration of exposures; type and amount of work or physical labor, including frequency and duration; and medical evaluation on respirator use, if applicable.

The UMWA is supportive of the ASTM standard and believes these are appropriate elements to require when miners choose to wear respirators.

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 should adopt similar requirements as OSHA under 29 CFR 1910.1020. For MNM miners who do not have access to black lung benefits, this data should be kept and be recoverable for 30 years. It should also be provided upon termination of employment. Retention would not be required for those employed less than 1 year if they are provided to the employee upon termination of employment. Operators should also be required to transfer those records to a successor employer. Whenever an employer is ceasing to do business and there is no successor employer to receive and maintain the records subject to this standard, the employer shall notify affected current employees of their rights of access to records at least three (3) months prior to the cessation of the employer's business.

We would like to emphasize that all records are to be made available promptly upon request to miners and authorized representatives of miner(s), which MSHA has included within the proposed rule.

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.

The UMWA believes that training is an integral part of health and safety and that the rule should require training on the hazards of silica, how to best control silica exposure, and the requirements of the rule itself. This is to ensure that both mine operators and miners are aware of all aspects of respirable crystalline silica and the requirements of the law. This training should be done for all miners new to the industry and annually as a refresher for all current miners.

This training should be separate from MSHA's Part 46 and Part 48 retraining. The current requirements in MSHA's annual retraining are already too full to attempt to incorporate anything additional.

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.

While the Union would agree that silica is a component of coal mine respirable dust, the current regulation of reducing the overall dust standard when silica/quartz is present at a level of five percent or greater in the mine atmosphere is not sufficiently protective. The proposed rule would create an independent silica standard, which the UMWA has been calling for the Agency to do for some time now. This would, as MSHA states in the proposed rule, result in miners' exposure to silica no longer being controlled indirectly by reducing overall respirable dust.

NIOSH, the Secretary of Labor's Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers (Dust Advisory Committee), and the Department of Labor's Inspector General have also recommended the adoption of an independent standard for respirable quartz exposure in coal mines. NIOSH evaluated the effectiveness of the existing standard and found the approach of controlling miners' exposures to respirable crystalline silica indirectly through the control of respirable dust did not protect miners from excessive exposure to respirable quartz in all cases (Joy GJ 2012). The study concluded that a separate respirable quartz standard, as described by the 1995 NIOSH Criteria Document, could reduce miners' risk of overexposure to respirable quartz and, by extension, their risk of developing silicosis. The adoption of a separate standard would hold operators accountable, at risk of a citation and monetary penalty, when overexposures of the respirable crystalline silica PEL occur, and enhance its sampling program to increase the frequency of sampling.

This is, of course, only the case if the Agency's rule increases required sampling to a sufficient level, reduces the current PEL, and strongly enforces the rule.

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.

The UMWA does not believe an approach similar to OSHA Table 1 would be appropriate to protect miners from unhealthy and dangerous levels of silica. Allowing mine operators to use a table, that shows what dust control measures to use each job, and then automatically

assume they are in compliance is ridiculous. Mining conditions are constantly changing and many times miners are not working in ideal situations. Also, mine operators already know and have access to proper dust control systems.

These dust control measures include ventilation systems (i.e., main, auxiliary, local exhaust), dust suppression devices (i.e., wet dust suppression and airborne capture), and enclosed cabs or control booths with filtered breathing air, as well as changes in materials handling, equipment used in a process. These engineering controls suppress (e.g., using water sprays, wetting agents, foams, water infusion), dilute (e.g., ventilation), divert (e.g., water sprays, passive barriers, ventilation), or capture dust (e.g., dust collectors) to minimize the exposure of miners working in the surrounding areas.

If mine operators utilize currently available dust control systems, follow the law, and their MSHA-approved ventilation and dust control plans, they would have no issue keeping respirable dust to safe levels. The problem is some operators choose not to do this. Therefore, it is safe to assume they would not follow an approach similar to OSHA Table 1.