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Mine Safety and Health Administration
Office of Standards, Regulations, and Variances
201 12th Street South
Suite 4E401
Arlington, Virginia 22202-5452

VIA EMAIL

RE: Lowering Miners' Exposure to Respirable Crystalline Silica, Docket No. MSHA 2023-0001, RIN 1219-AB36

On behalf of the members of the Pennsylvania Coal Alliance (PCA), please accept the following comments on the proposed rule concerning lowering miners' exposure to respirable crystalline silica, Docket No. MSHA 2023-0001. The PCA believes that a proposed rule could lead to meaningful improvements over the existing rule and result in significant health advances; however, we are not confident the necessary scientific support and detail required for formal promulgation has been provided.

The PCA is the principal trade organization representing underground and surface bituminous coal operators in Pennsylvania as well as other associated companies and businesses that rely on coal mining and a strong coal economy. Nationally, Pennsylvania is the third largest coal producing state, and in 2022 PCA member companies produced over 90 percent of the bituminous coal mined in Pennsylvania.

The PCA has a significant interest in the proposed rule. PCA members include large longwall mines with extensive surface areas for cleaning plants and coal refuse disposal areas, underground coal mines which utilize continuous miners and similarly maintain surface preparation plants and refuse disposal areas, and surface coal mines. All of PCA's producer member operations would be subject to the rule, as well as perhaps many of PCA's manufacturing and service provider members that frequent operations to service the mines.

At the outset, we question the necessity for the proposed rule, especially for the coal industry. The preamble indicates that only 1.2% of the samples the Mine Safety and Health Administration (MSHA) is relying on show an exceedance of the existing 100 microgram standard.[1] More importantly, the scientific basis set out in the preamble does not support adoption of the rule for the coal industry. The studies cited in the preamble, with perhaps one exception, predate the 2014 respirable dust rule, which

[1] Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection, 88 Fed. Reg. 44867-44869 (July 13, 2023)

reduced the limits for respirable coal mine dust and for quartz, the surrogate for silica in the coal industry. Unless and until the effect of the 2014 rule changes for respirable dust can be determined, the proposed rule cannot be justified. Moreover, the assertion that there has been an increase in progressive massive fibrosis and silicosis in certain areas of the country that was used as justification for the 2014 rule changes does not support this rule without new data.[2] It is unclear to the PCA whether the comments at the public hearings about coal worker's pneumoconiosis incidence are for time periods when the 2014 standards were in effect, and PCA's member companies have not experienced any marked increase in federal black lung claims or state workers' compensation claims for pneumoconiosis or silicosis.

In addition to outdated data, the majority of the research MSHA relied upon in developing the proposed rule does not account for significant technological advancements in mining and dust control technology, or any changes on pneumoconiosis or silicosis rates under the 2014 standards. We do know from the thousands of sample results gathered under the 2014 rule, both by industry and MSHA, that the coal industry complies with the lowered standard. For that reason, we would urge that the proposed rule, as it relates to the coal industry, be withdrawn until further research and analysis is done.

PCA does not object to the adoption of a 50 microgram permissible exposure limit (PEL); however, we do oppose the various provisions in the proposed rule that artificially lower the PEL and the action level. The foremost provision is the concentration for a sample gathered over an extended shift is calculated as if it were collected during an eight-hour period. However, PCA's producing members utilize 9–10-hour shifts and 12 hour shifts. Using an eight-hour shift to calculate the concentration based on 9-10-hours of sampling is not appropriate and translates to a PEL that is approximately 40 micrograms and an action level that is approximately 20 micrograms. This does not conform to our schedule of operations, and, in addition, is inconsistent with the OSHA silica standard. MSHA has justified the lowering of the PEL on the basis that stopping the sampling after eight hours does not give a true reflection of the worker's exposure, but neither does the artificial construction of a sample that is deliberately enhanced and unrepresentative of an eight-hour period. [3] MSHA asserts that such shifts reduce the "rest" time between shifts but fails to recognize that miners who work 10 or 12 hour shifts have shorter work weeks and more time between work weeks. For example, a "weekend warrior" who works three 13-hour shifts then has four days off between work weeks. Further, unlike metal/non-metal mines, the coal industry performs occupational sampling. Occupational sampling requires miners to hand off the pump when they change positions, such as on a longwall face. This inflates the results and divorces any result from an individual's actual exposure. Therefore, there is no reason to continue to require coal mine operators to conduct occupational sampling.

PCA also objects to the 25 microgram action level. While our members have prepared for the 50 microgram standard, there was no indication that they would have to prepare for a standard half that amount. We are uncertain as to how that level was developed or whether it is a level that can be effectively analyzed because of how little material that it actually represents. Further, we are not aware of any scientific study that supports use of such a low level as an action level. Further a review of the sampling data for Pennsylvania underground coal mines suggests that many would average above the

[2] Lowering Miners' Exposure to Respirable Coal Mine Dust, Including Continuous Personal Dust Monitors 79 Fed. Reg. 24820, 24824, and 24830 (May 1, 2014)

[3] Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection, 88 Fed. Reg. 44903 (July 13, 2023)

action level, although also averaging below 50 micrograms, indicating that almost all mines would be in the category that requires additional measures. [4]

Similarly, the proposed rule prohibits rotating shifts to achieve compliance. However, shift rotations are an acceptable practice, common for individual hygiene, and customary to the operation of longwall mines. MSHA's explanation for prohibiting this practice is not logical as the rotation of miners does not necessarily mean more miners will be overexposed; rather, the prohibition increases the exposure of one employee to the advantage of others and ignores that the PEL is an eight-hour time weighted average for a 40-year working life and therefore the rotation of miners means all the miners involved will be under the PEL.[5]

In many ways, MSHA's refusal to permit the use of respirators as a compliance method when other methods are not effective or economically feasible creates a greater likelihood of exposure. At the recent August 3, 2023 public hearing there was an attempt to demonstrate that respirators are uncomfortable or make it more difficult to communicate; however, the demonstration failed to address powered air purifying respirators (PAPR) which are routinely worn on longwall faces without hindrance. PAPRs are comfortable and effective and they do not suffer from the limitations relevant to facial hair. PCA suggests MSHA provide support for the use of PAPRs perhaps through an additional provision in the proposed rule permitting the use of PAPRs with IS ratings in lieu of permissible PAPRs. While it is possible to obtain permission to use intrinsically safe PAPRs through the petition for modification process, that process is protracted and fundamentally flawed.

In addition, the rule requires fit testing before respirators are used. While large operators may have equipment to do such testing, smaller operators will have to make arrangements for such testing. In those cases, the respiratory protection cannot be "immediately available" as required by the rule.

The proposed rule is also limited in addressing the use of contractors and their role and responsibilities in sampling and compliance. If a contract miner being sampled is a member of a crew made up primarily of production workers, the application of the rule may be straightforward. However, if the contractor is performing independent work on site, such as guniting and drilling, the independent work is not addressed in either the proposed rule or the preamble.

Further, the public hearing process on the proposed rule was disconcerting as there were several comments related to operators taking samples in a fashion inconsistent with the regulations. The PCA does not believe that dishonest sampling is widespread and, frankly, as an industry, are weary of the constant accusations that are absent of evidence. Any analysis of MSHA sampling results in comparisons to the operators demonstrates similar results. Further, the personal dust monitors (PDM) currently used for respirable dust sampling have features that assist in detecting false results. For instance, PDMs have a tilt sensor which indicates the sample is being taken while level and in a stationary position and,

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[4] At the SME Annual Conference & Expo, in Denver, Colorado, on February 27, 2019 Assistant Secretary for Mine Safety and Health David Zatezalo provided statistics showing the number of MSHA and operator-collected coal dust samples proved that overexposures of the coal dust permissible exposure limit have exponentially decreased since 2000, that the average concentration of quartz in all samples taken in the coal sector since 2009 averaged 25.6 micrograms/m^3, and that the number of quartz overexposures in coal have decreased from 23.3% to 1.2% from 2000-2019. https://www.msha.gov/sites/default/files/events/SME%20presentation%202-26-19.pdf

[5] Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection, 88 Fed. Reg. 44905 (July 13, 2023)

similarly, if the PDM was placed on a power center, the temperature sensor would show elevated heat. We understand that the manufacturer claims that these features were not designed to detect fraud however, it is our view that the manufacturer supports credible sampling and use of such features for any purpose necessary. These protections safeguard against false results and are not available with the use of gravimetric samplers that are included in the proposed rule. Moreover, such accusations and claims of the absence of enforcement mechanisms in the proposed rule fail to account for the penalty and enforcement resources included in the Federal Mine Safety and Health Act of 1977 and 30 CFR Part 100, as MSHA has criminally prosecuted dust fraud.

In addition, Parts 70 and 71 of the proposed rule are constrained by the prescribed sampling infrastructure. The silica rule has no such structure. For example, there is no requirement that persons who conduct the sampling be certified, and coal miners who are certified to conduct sampling under the current system may not be qualified (or trained) to use gravimetric sampling pumps because the pumps are rarely, if ever, used. And, we do not think an additional certification program is feasible because the current program has been cumbersome and unworkable because of the unavailability of MSHA personnel. Further, there is no requirement that the sampling details be recorded and verified in a dust data card; there is no requirement that checks on the sampling being made; and there is no requirement that the person being sampled, or the location sampled be identified. While our members are certainly capable of creating a program structure of their own, the lack of structure will make it easier to claim that the program is rife with fraud.

The proposed rule seeks comment on whether the quartz provisions of 30 CFR §70.101 and 71.101 should be eliminated. The PCA believes those provisions should be deleted if the proposed rule is adopted as the lowered standard for crystalline silica of 50 micrograms provides sufficient protection, is not a reduction in protection, and would prevent confusion. For example, sampling under the proposed rule for quartz would take place using a flow rate of 2.0 l/m using a gravimetric sampler but for silica the sampling would continue a flow rate of 1.7 l/m, rendering the results of quartz sampling invalid for silica sampling.

MSHA has indicated that one sample above the PEL is sufficient for enforcement actions but that two samples, at least seven days apart, are required to confirm that the action level has not been exceeded. It is far better sampling practice to rely on more than one sample. As such, we suggest that before enforcement action is taken, two non-compliant samples should be taken. If two samples are required for operator compliance, two should be required for enforcement actions. Moreover, as with the 2014 respirable dust rule, the proposed rule should consider sampling variability. There is a great deal of uncertainty in sampling results which MSHA partially addressed in previous revisions to the coal dust samples. The current proposed rule fails to address this uncertainty. Further, for quartz and respirable dust, there was a rather complex approach to a non-compliant sample, especially with respect to ventilation plan of the operator. No such approach exists in the proposed rule. The rule also permits use of “representative” samples for determining action levels. While this is generally a reasonable approach, it is unclear from the rule what is intended to constitute a representative sample. On a particular mechanized mining unit, would a sample on a continuous mine operator be representative or would samples on roof bolters be required? Moreover, the limitation of such samples to a single shift is unduly restrictive.

Further, we would note that reliance on spirometry is misplaced. Leaving aside that such process does not diagnose silicosis, which is troublesome on its own, the only lab certified for our operators in Pennsylvania is in Somerset, PA, over 100 miles from the workforce of one of our major operators. We are concerned about the availability of NIOSH-certified labs.

Lastly, the agency asked whether it should make follow-up medical surveillance exams mandatory versus voluntary. Our experience under Part 90 is that miners rarely submit to a second exam. In addition, not providing the results to the operator hinders the operator's ability to best control a miner's exposure. If the operator does not receive the results of any exams, we see little value in further mandating exams.

The PCA appreciates the opportunity to comment on the proposed rule. While we urge withdrawal of the rule due to the absence of recent and reliable data, we are also confident MSHA will take our comments on the proposed rule's challenges and inconsistencies into consideration.

Sincerely,

Rachel Gleason
Executive Director
Pennsylvania Coal Alliance