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Docket No. MSHA-2023-0001

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Hon. Christopher Williamson
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RE: PUBLIC COMMENTS, specifically regarding Metal and Nonmetal, on the Mine Safety and Health Administration (MSHA) Proposed Rule, "Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection" (Silica Standard) (July 13, 2023)
RIN 1219-AB36
Docket No. MSHA-2023-0001

Badger Mining Corporation (BMC) is a family-owned business committed to producing high-quality industrial silica sand products, operating our facilities in an environmentally responsible manner and ensuring the health and wellness of our Associates and of the communities in which we operate. Markets we serve include oil and gas production, metalcasting, construction, recreation, filter media, agriculture, etc.

The origins of BMC began in 1949 with our Fairwater Plant (originally called the C.A. Chier Sand Company) located near Fairwater, Wisconsin. In 1979, BMC incorporated and expanded operations to our Taylor Plant located near Taylor, Wisconsin. And our most recent expansion of operations took place in 2018 with our Kermit Plant located near Kermit, Texas. BMC currently employs about 200 Associates, including members of the fourth generation.

BMC is fully committed to protecting the safety and health of our most precious resource, our Associates. BMC goes to great lengths, frequently above and beyond regulations and laws, to provide safe and healthy work environments.

For decades, BMC has adopted the National Industrial Sand Association's (NISA's) *Occupational Health Program for Exposure to Crystalline Silica in the Industrial Sand Industry* and *Silicosis Prevention Program* (now National Stone, Sand and Gravel Association (NSSGA)). BMC has significant experience in managing exposures to industrial sand, including relevant experience on industrial hygiene sampling, medical surveillance, training and the use of respiratory protection.

BMC is providing the following timely written public comments, which include issues and recommendations, for your consideration in response to the *Mine Safety and Health Administration (MSHA) proposed rule, "Lowering Miners' Exposure to Respirable Crystalline Silica and Improving Respiratory Protection" (Silica Standard) RIN 1219-AB36 Docket No. MSHA-2023-0001* released on July 13, 2023 for public comment until September 11, 2023. Please enter our comments as outlined below into record and strongly consider each.

§ 60.1 – Scope; Effective Date

MSHA is proposing that the final proposed part 60 would become effective 120 days after the rule is published in the *Federal Register*. Miners would be required to comply with the requirements in this part starting on the proposed effective date.

Regarding **question 10,** BMC believes that the proposed 120-day period is not a sufficient timeframe to give mine operators the necessary time to plan and prepare for effective compliance with the extent of changes this new standard would require. A significant portion of the industry will need time and support to come into compliance with the proposed rule.

BMC requests that the effective date after publication in the *Federal Register* be extended to a date of at least 24 months.

§ 60.2 – Definitions

MSHA proposes the term "action level" would mean an airborne concentration of respirable silica of 25 micrograms per cubic meter ($\mu g/m^3$) of air, one-half of the proposed permissible exposure limit (PEL), for a full shift exposure, calculated as an 8-hour time weighted average (TWA). The action level sets the level of respirable crystalline silica concentration at or above which operators would be subject to periodic sampling.

Regarding **question 11,** MSHA currently does not have an action level. The proposed action level is four times more restrictive than the current MSHA PEL. Same PEL adopted in the *OSHA Respirable Crystalline Silica Standard for General Industry and Maritime* adopted in 2016 (referred to as the *OSHA Silica Standard* henceforth); however, with OSHA exposures at or above the action level trigger requirements for exposure assessment and medical surveillance.

BMC does not oppose the action level of 25 $\mu g/m^3$.

MSHA proposes the term "objective data" would mean information such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance that indicates the level of miner exposure to respirable crystalline silica associated with a particular product or material or a specific process, task or activity. Such data must reflect mining conditions closely resembling, or with a higher exposure potential than, the processes, types of material, control methods, work practices and environmental conditions in the operator's current operations.

Regarding **question 12,** as previously stated, BMC has significant experience for decades in managing exposures to industrial sand, including relevant experience on industrial hygiene sampling, medical surveillance, training and the use of respiratory protection.

The *OSHA Silica Standard* includes historical air monitoring data collected by the employer as objective data in the exposure assessment performance option.

BMC believes MSHA should include exposure sampling taken by the operator preceding the effective date of the proposed rule as "objective data."

§ 60.10 – Permissible Exposure Limit (PEL)

Regarding **question 13,** MSHA's proposed rule would reduce the respirable crystalline silica PEL from 100 $\mu g/m^3$ of air to 50 $\mu g/m^3$ of air for a full shift exposure, calculated as an 8-hour TWA. As previously indicated, the same PEL adopted in the *OSHA Silica Standard*; however, with OSHA exposures at or above the action level trigger requirements for exposure assessment and medical surveillance.

BMC supports MSHA's proposed reduction of the PEL.

§ 60.11 – Methods of Compliance
§ 60.11(a) – Engineering Controls
§ 60.11(b) – Administrative Controls

The proposed rule would require mine operators to install, use and maintain feasible engineering and administrative controls to keep each miner's exposure to respirable crystalline silica at or below the PEL. Mine operators would be required to use feasible engineering controls as the primary means of controlling respirable crystalline silica; administrative controls would be used, when necessary, as a supplementary control.

Importantly, under the proposal, rotation of miners – that is, assigning more than 1 miner to a high-exposure task or location, and rotating them to keep each miner's exposure below the PEL – would be prohibited.

Under the proposed rule, respiratory protection equipment could be used in specific and limited situations, but the use of respiratory protection equipment would not be acceptable as a method of compliance.

Regarding **question 15,** the rotation of miners (or any employee) is done for various beneficial reasons, some of which include cross-training, increased productivity and innovation, to promote development, to prevent boredom and fatigue, to reduce ergonomic issues, to reduce exposures (weather, noise, dust, radiation), etc. At BMC for example, Dry Team Associates typically rotate as control, lab and loader operators during their shift. Other Associates may be cross trained on the Dry Team as well.

Rotation of miners (a type of administrative control) is not practiced as a means of avoiding implementation of engineering and other administrative controls. Rotation is an essential control when others are infeasible (e.g., implementation of engineering controls such as spray bars in cold weather when water freezes). Worker rotation is a National Institute for Occupational Safety and Health (NIOSH) recommended and industrial hygiene-supported best practice administrative control. The *OSHA Silica Standard* does not prohibit the rotation of employees.

Additionally, prohibiting miner rotation to limit the number of miners exposed also contradicts the existence of a PEL and its calculation as a TWA. A PEL allows for some level of exposure to respirable crystalline silica. When a PEL is complied with, and a miner's exposure stays under that permitted level of exposure, then they are deemed by MSHA to be protected. If there was no threshold, then there would be no PEL, or the PEL would be zero– but this is not the case as MSHA has proposed a PEL of 50 $\mu g/m^3$ that it deems protective of worker health.

BMC believes MSHA needs to revise the proposed rule to allow rotation of miners as an acceptable method of compliance.

Regarding **question 37**, under the hierarchy of controls, which is a long-standing policy, respirators can be another effective way to protect miners. OSHA and NIOSH support the use of respiratory protection when the use of feasible engineering and administrative controls are not able to reduce miner exposures to or below the PEL.

BMC believes MSHA needs to revise the proposed rule to allow the use of respiratory protection equipment as an acceptable method of compliance. A Respiratory Protection Program would ensure that respirators are properly used and are effective in protecting the miners.

Regarding **question 43,** BMC recognizes and believes it is a huge shortfall that MSHA is not proposing to adopt a similar approach as OSHA's *"Table 1 – Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica"* for the construction industry, which would prescribe specific control methods for task-based work when working with respirable crystalline silica. This is a critical departure from the *OSHA Silica Standard* and something the industry advocated as needed to be included.

BMC believes MSHA undoubtably needs to comprise and include specific tasks and exposure control methods appropriate for a Table 1 approach for the mining industry that would adequately protect miners from risk of exposure to respirable crystalline silica.

§ 60.12 – Exposure Monitoring

Regarding **questions 7 and 17**, the current MSHA exposure monitoring requirements for MNM are that mine operators must conduct respirable dust surveys as frequently as necessary to determine the adequacy of control measures.

In stark contrast, the proposed rule includes extensive quantitative and qualitative sampling requirements (**baseline (regardless of historical data), periodic (continuous quarterly monitoring if samples come back between the action level and PEL even if exposures are characterized), post-corrective action, semi-annual evaluation and post-evaluation**).

As previously stated, BMC has been doing respirable crystalline silica exposure monitoring (personal and area) for decades to accurately characterize the exposure of each miner who is or may reasonably be expected to be exposed to respirable crystalline silica based on our programs, adopted from NISA.

The MSHA proposed rule's extensive sampling requirements will be financially and resource burdensome to BMC and all other mine operators.

BMC supports some of the less stringent monitoring provisions MSHA considered in the two regulatory alternatives.

BMC also supports some of the provisions of the *OSHA Silica Standard*, which MSHA did not consider unfortunately.

The *OSHA Silica Standard* is risk-based and based on exposure assessment. Employers can choose between two operations for assessing exposures: 1) the performance option; or 2) the scheduled monitoring option. This allows for flexibility, incorporates data from mine operators who have had exposure monitoring in place for years or decades like BMC and is more protective of miners as it characterizes exposures.

The performance option gives employers flexibility to determine the 8-hour TWA exposure for each employee based on any combination of monitoring data or objective data that can accurately characterize employee exposures to respirable crystalline silica. The performance option may be especially useful when measuring employee exposures is challenging, such as when tasks are performed only occasionally. The performance option gives employers flexibility for characterizing the exposure of all employees.

The scheduling monitoring option lets employers know when and how often they must perform exposure monitoring to measure employee exposures. Under the scheduled monitoring option, how often monitoring must be done depends on the results of the initial monitoring and, thereafter, and required further monitoring.

The employer must reassess exposure whenever a chance in production, process, control equipment, personnel or work practices may reasonably be expected to result in new or additional exposures of respirable crystalline silica at or above the action level, or when the employer has any reason to believe that new or additional exposures at or above the action level have occurred.

BMC strongly urges MSHA to align with the *OSHA Silica Standard*.

As previously stated regarding **question 12,** BMC has significant experience for decades in managing exposures to industrial sand, including relevant experience on industrial hygiene sampling, medical surveillance, training and the use of respiratory protection.

The *OSHA Silica Standard* includes historical air monitoring data collected by the employer as objective data in the exposure assessment performance option.

BMC believes MSHA should include exposure sampling taken by the operator preceding the effective date of the proposed rule as "objective data."

§ 60.12(a) – Baseline sampling would be required by the proposed rule for each miner who is or may "reasonably be expected" to be exposed to respirable silica at any level within 180 days of the effective date of the final rule.
MSHA assumes that most mining occupations related to extraction and processing would meet the "reasonably expected" threshold; however, MSHA recognizes that some miners may work in areas or perform tasks where exposures are not reasonably likely, and some miners may work in silica free environments.

Under this proposed rule, mine operators would need to accurately characterize the exposure of each miner who is or may be expected to be exposed to respirable crystalline silica. As discussed later in detail, mine operators would be permitted to use representative sampling whenever sampling is required.

If the baseline sample indicated that exposures were below the proposed action level and operators can confirm those results, mine operators would not be required to conduct periodic sampling. The results can be confirmed in three ways:

1. Sample data, collected by the operator or Secretary in the 12 months preceding the baseline sampling, that also shows exposures below the proposed action level;
2. "Objective data" as defined in the proposal confirming that the miner's exposure to respirable crystalline silica would remain below the proposed action level; or
3. Another sample taken within 3 months showing exposure below the proposed action level.

Regarding **questions 17, 20 and 22,** MSHA does not define the "at some level" "reasonably expected" to be exposed threshold. It is so broad that every miner that works at BMC is "reasonably expected" to be exposed "at some level" to respirable crystalline silica.

The *OSHA Silica Standard* specifically states that the standard does not apply when the employer has objective data that employee exposure to respirable crystalline silica will remain below the action level of 25 µg/m^3 as an 8-hour TWA under any foreseeable condition.

BMC believes MSHA should adopt a provision at which exposure monitoring is not required "at some level."

Regarding **question 20** and previously stated in **question 10,** BMC believes that the proposed 180-day period after the rule becomes effective is not a sufficient timeframe to give mine operators the necessary time to plan and prepare for the baseline sampling requirements in the proposed rule. A significant portion of the industry will need time and support to establish exposure monitoring programs.

BMC requests that the effective date after publication in the *Federal Register* be extended to a date of at least 24 months.

Again, as previously stated regarding **question 12,** BMC has significant experience for decades in managing exposures to industrial sand, including relevant experience on industrial hygiene sampling, medical surveillance, training and the use of respiratory protection.

The *OSHA Silica Standard* includes historical air monitoring data collected by the employer as objective data in the exposure assessment performance option.

BMC believes MSHA should include exposure sampling taken by the operator preceding the effective date of the proposed rule as "objective data."

§ 60.12(b) – Periodic sampling would be required by the proposed rule if the most recent exposure monitoring indicates an exceedance at or above the proposed action level but at or below the proposed PEL. Whether a mine operator would have to conduct periodic sampling under the proposal would depend on the results of the most recent sample, which could include a baseline sample, a corrective actions sample or a post-evaluation sample, as well as samples taken by MSHS during its inspections. Periodic sampling would be required every 3 months until 2 consecutive sample analyses show miner exposures below the proposed action limit.

As with the baseline sampling, mine operators would be allowed to sample a representative fraction of at least two miners.

Regarding **questions 17, 23 and 25,** one of the things to note here is that one or even two sample results below the proposed action level do not necessarily equate to overall lower exposures and it is likely that many such two-samples below action level results will occur merely by chance. This is particularly true for underlying exposure distributions that are highly variable and include actual exposure above the PEL and/or the action level.

Not only will the MSHA proposal lead to possible under sampling, it could also lead to possible over sampling. Periodic sampling every 3 months consistently shows results below the PEL and exposures are controlled. Continued sampling is financially and resource burdensome and not additionally protective of miner health.

Once again, BMC believes MSHA should adopt exposure monitoring provisions like the *OSHA Silica Standard*.

Regarding **question 24,** basically, periodic sampling every 3 months will likely be required for most miners every 3 months even though it has been demonstrated their exposures are below the PEL, which will be extremely financially and resource burdensome to mine operators.
As previously stated, the *OSHA Silica Standard* is risk-based and based on exposure assessment. Employers can choose between two operations for assessing exposures: 1) the performance option; or 2) the scheduled monitoring option. This allows for flexibility, incorporates data from mine operators who have had exposure monitoring in place for years or decades like BMC and is more protective of miners as it characterizes exposures.

The scheduling monitoring option lets employers know when and how often they must perform exposure monitoring to measure employee exposures. Under the scheduled monitoring option, how often monitoring must be done depends on the results of the initial monitoring and, thereafter, and required further monitoring.

If the most recent exposure monitoring reveals employee exposures at or above the action level, but below the PEL, the employer must repeat monitoring within 6 months of the most recent monitoring. If the most recent exposure monitoring revels employee exposures above the PEL, the employer must repeat monitoring within 3 months of the most recent monitoring.

BMC strongly urges MSHA to align with the *OSHA Silica Standard*.

§ 60.12(c) – Corrective actions sampling would be required by the proposed rule when any sampling shows exposures above the proposed PEL.

After such corrective actions, the proposed rule would require mine operators to conduct corrective actions sampling to determine whether the control measures under proposed § 60.13 have reduced miner exposures to respirable crystalline silica to at or below the proposed PEL. If not, the mine operator would be required to take additional or new corrective actions until subsequent corrective actions sampling indicates exposures are at or below the proposed PEL.

Once corrective actions sampling indicates that miner exposures have been lowered to levels at or below the proposed PEL, one of two scenarios could occur. First, if corrective actions sampling indicate that miner exposures are at or below the proposed PEL, but at or above the proposed action level, the mine operator would be required to conduct periodic sampling. Second, if corrective actions sampling indicate that miner exposures are below the proposed action level, the mine operator would be required to conduct a subsequent sample within 3 months and if those results show miners' exposures are below the action level, the mine operator could discontinue periodic sampling.

Please refer to comments in **§ 60.12 – Exposure Monitoring** Section.

§ 60.12(d) – A **Semi-Annual Evaluation** would be required by the proposed rule to qualitatively evaluate any changes in production, processes, engineering controls, personnel, administrative controls or other factors including geological characteristic that might results in new or increased respirable crystalline silica exposures beginning 18 months after the effective date and every 6 months thereafter.

The proposed rule would require the mine operator to make a record of the evaluation, including the date of the evaluation. The mine operator would be required to post the record on the mine bulletin board, and, if applicable, make the evaluation available electronically, for the next 31 days.

Regarding **questions 21 and 26,** a Semi-Annual Evaluation to evaluate any changes in production, processes, engineering controls, personnel, administrative controls or other factors including geological characteristic that might results in new or increased respirable crystalline silica exposures beginning 18 months after the effective date and every 6 months thereafter will be extremely financially and resource burdensome to mine operators.

BMC believes MSHA should revise the proposed rule to eliminate the semi-annual evaluation and require mine operators conduct reassessment exposure sampling when there are any changes in production, processes, engineering controls, personnel, administrative controls or other factors including geological characteristic that might result in new or increased respirable crystalline silica exposures. This would apply whether changes occur weekly, monthly, annually or never. If there are changes that occur that might result in new or increased respirable crystalline silica exposures, then sample and there will be no "gap," which eliminates MSHA's concern. The reassessment of exposures is consistent with the *OSHA Silica Standard*.

§ 60.12(e) – Once the evaluation is complete, a mine operator would be required to conduct **post-evaluation sampling** when the results of the evaluation show that miners may be exposed at or above the action level. When post-evaluations samples indicate that the miner exposures are at or above the proposed action level, the mine operator would be required to conduct periodic sampling. Post-evaluation sampling, however, would not be required if the mine operator determines that mining conditions would not "reasonably be expected" to results in exposures at or above the action level.

As previously stated, regarding **questions 21 and 26,** a Semi-Annual Evaluation to evaluate any changes in production, processes, engineering controls, personnel, administrative controls or other factors including geological characteristic that might results in new or increased respirable crystalline silica exposures beginning 18 months after the effective date and every 6 months thereafter will be extremely financially and resource burdensome to mine operators.

BMC believes MSHA should revise the proposed rule to eliminate the semi-annual evaluation and require mine operators conduct reassessment exposure sampling when there are any changes in production, processes, engineering controls, personnel, administrative controls or other factors including geological characteristic that might result in new or increased respirable crystalline silica exposures. This would apply whether changes occur weekly, monthly, annually or never. If there are changes that occur that might result in new or increased respirable crystalline silica exposures, then sample and there will be no "gap," which eliminates MSHA's concern. The reassessment of exposures is consistent with the *OSHA Silica Standard*.

§ 60.12(f) Sampling Requirements

(1) Typical Mining Activities and Sampling Device Placement

The proposed rule would require mine operators to collect a respirable dust sample for the duration of a miner's regular full shift and during typical mining activities.

The proposed rule is consistent with existing standards and with generally accepted industrial hygiene principles, which recommend taking into consideration the entire duration of time a miner is exposed to an airborne contaminate, even if it exceeds 8 hours.

The proposed rule would continue existing procedures for sampling device placement during sampling. Under the proposed rule, for MNM miners the regular full-shift, 8-hour TWA exposure would be based on personal breathing-zone air samples. A breathing zone sample is an individual sample that characterizes a miner's exposure to respirable crystalline silica during an entire work shift. More specifically, the sampler remains with the miner for the entire shift, regardless of the task or occupation performed.

Regarding **question 18,** mine operators, like BMC, know their mine sites and what typical mining and environmental conditions are like. Mine operators sample at the right times to determine exposures in order implement feasible controls, if needed.

BMC strongly recommends MSHA does not need to specify environmental conditions under which samples should be taken.

BMC also believes MSHA needs to clarify in the proposed rule regarding the fact that the sampler remains with the miner for the entire shift, regardless of the task or occupation performed that the "sampler" means the sampling device and not the person conducting the sampling.

(2) Representative Sampling

Under the proposed standard, mine operators would be required to accurately characterize miners' exposure to respirable crystalline silica. In some cases, this would require sampling all exposed miners. All other cases, sampling a "representative" faction of miners would be sufficient. Where several miners perform the same tasks on the same shift and in the same work area, the mine operator could sample a representative fraction of miners. A representative fraction of miners would consist of 2 or more miners performing the same tasks on the same shift and in the same work area and who are expected to have the highest exposures of all miners in the area.

When miners are not performing the same job under the same working conditions, a representative sample would not be sufficient to characterize actual exposures, and therefore individual samples would be necessary.

Regarding **question 28,** MSHA is proposing when several miners perform the same task on the same shift and in the same work area, the mine operator may sample a representative faction of miners to meet the proposed exposure monitoring requirements. In this instance, MSHA did adopt the representative sampling from The *OSHA Silica Standard*.

As previously stated, BMC has been doing respirable crystalline silica exposure monitoring (personal and area) for decades to accurately characterize the exposure of each miner who is or may reasonably be expected to be exposed to respirable crystalline silica based on our programs, adopted from NISA. It is wrong for MSHA and OSHA to assume, for example, if a Dry Team Associate performs exactly the same job tasks using the same equipment and in the same place on one shift compared to another Dry Team Associate on a different shift, then there should be no reason that the respective exposures would be any different.

BMC believes MSHA needs to revise the representative sampling requirements to include when several miners perform the same task and in the same work area, regardless of work shift, the mine operator may sample a representative fraction of miners to meet the proposed exposure monitoring requirements.

(3) Sampling Devices

The proposed rule would require mine operators to use sampling devices designed to meet the characteristics for respirable particle-size-selective samplers that conform to the ISO 7708:1995, *''Air Quality—Particle Size Fraction Definitions for Health-Related Sampling,''* Edition 1, 1995–04 to determine compliance with the proposed respirable crystalline silica action level and PEL. MSHA proposes to incorporate by reference ISO 7708:1995, which is the international consensus standard that defines sampling conventions for particle size fractions used in assessing possible health effects of airborne particles in the workplace and ambient environment. Mine operators could use any type of sampling device they wish for respirable crystalline silica sampling, as long as it is designed to meet the characteristics for respirable-particle-size-selective samplers that conform to the ISO 7708:1995 standard and, where appropriate, meets MSHA permissibility requirements.

BMC has no objection to MSHA's sampling devices provisions proposed here.

§ 60.12(g) – Methods of Sample Analysis

The proposed rule specifies the methods to be used for analysis of respirable crystalline silica samples, including details regarding the specific analytical methods to be used and the qualifications of the laboratories where the samples are analyzed.

The proposed rule would require mine operators to use laboratories that are accredited to the International Organization for Standardization (ISO) or International Electrotechnical Commission (IEC) (ISO/IEC) 17025, *''General requirements for the competence of testing and calibration laboratories''* with respect to respirable crystalline silica analyses, where the accreditation has been issued by a bod that is compliant with ISO/IEC 17011 *''Conformity assessment—Requirements for accreditation bodies accrediting conformity assessment bodies.''*

The proposed rule would require all mine operators to use third-party laboratories accredited to ISO/IEC 17025 to have respirable dust samples analyzed for respirable crystalline silica.

The proposed rule would require mine operators to ensure that laboratories evaluate all samples using analytical methods for respirable crystalline silica that are specified by MSHA, NIOSH, or OSHA.

BMC has no objection to MSHA's method of sample analysis provisions proposed here.

60.12(h) – Sampling Records

The proposed rule would require mine operators to create a sampling record that includes the sample date, the sampled occupations and the reported concentrations of both respirable dust and respirable crystalline silica. After making such record, the mine operator would be required to post the record, together with the laboratory report, on the mine bulletin board and, if applicable, make the record and the laboratory report available electronically, for the next 31 days upon receipt.

When electronic means are available, mine operators would be required to use those electronic means such as electronic bulletin boards or newsletters, in addition to physically posting the sampling record and the laboratory report on the mine bulletin board.

BMC has no objection to MSHA's sampling records provisions proposed here with the exception comments below in § 60.16 – Record Keeping.

§ 60.13 – Corrective Actions

The proposed rule would require operators to take immediate **corrective actions** to lower the concentration of respirable crystalline silica to levels at or below the PEL.

The proposed rule would require the mine operator to make NIOSH-approved respirators available to the affected miners before the start of the next shift.

The proposed rule would require mine operators to ensure that affected miners wear respirators for the full shift or during the period of overexposure to protect miners until miner exposures are at or below the PEL.

After such corrective actions, the proposed rule would require mine operators to **conduct corrective actions sampling** to determine whether the control measures taken have reduced miner exposures to respirable crystalline silica to at or below the proposed PEL. If not, the mine operator would be required to take additional or new corrective actions until subsequent corrective actions sampling indicates miner exposures are at or below the proposed PEL.

The proposed rule would require the mine operator to make a record of corrective actions and the dates of the corrective actions.

As previously stated regarding **question 37**, under the hierarchy of controls, which is a long-standing policy, respirators can be another effective way to protect miners. OSHA and NIOSH support the use of respiratory protection when the use of feasible engineering and administrative controls are not able to reduce miner exposures to or below the PEL.

BMC believes MSHA needs to revise the proposed rule to allow the use of respiratory protection equipment as an acceptable method of compliance. A Respiratory Protection Program would ensure that respirators are properly used and are effective in protecting the miners.

§ 60.14 – Respiratory Protection

As noted earlier, the use of respiratory protection equipment, including powered air-purifying respirators (PAPRs), would not be permitted as a control to achieve compliance with the proposed PEL. However, temporary non-routine use of respirators would be allowed under certain circumstances.

The proposed rule would require the mine operators to provide respirators to miners as a temporary measure when miners are working in concentrations of respirable crystalline silica above the PEL under specific, limited circumstances.

1. The development and implementation of engineering control;
2. Nonroutine work (which appears to include maintenance tasks).

Under the proposed rule, upon written determination by a physician or other licensed health care professional (PLHCP) that an affected miner is unable to wear a respirator, the miner shall be temporarily transferred wither to work in a separate area of the same mine or to an occupation at the same mine where respiratory protection is not required.

1. The affected miner shall continue to receive compensation at no less than the regular rate of pay in the occupation held by the miner immediately prior to the transfer.
2. The affected miner may be transferred back to the miner's initial work area or occupation when temporary non-routine use of respirators is no longer required.

The proposed rule would require the mine operator, upon written notification by a PLHCP, to transfer an affected miner who is unable to wear a respirator to work in another area of the same mine, or to another occupation at the same mine, where respiratory protect is not required.

The proposed rule would require the mine operator to continue to compensate the affected miner at no less than the regular rate of pay in the occupation held by that miner immediately prior to the transfer. Under the proposed rule, the miner may be transferred back to the initial work area or occupation when the temporary, non-routine use of respirators is no longer required.

The proposed rule would require mine operators to provide respiratory protection equipment approved by NIOSH under 42 CFR part 84. Whenever respirators are used by miners, the proposed rule would require the mine operator to provide miners with NIOSH-approved atmosphere-supplying respirators or air-purifying respirators.

Under the proposed rule, air-purifying respirators would be required to be equipped with one of the following three particulate protection types: (1) particulate protection defined as a 100 series under 42 CFR part 84; or (2) particulate protection defined as High Efficiency ''HE'' under 42 CFR part 84.

The proposed rule would require mine operators to follow the provisions, as applicable, of ASTM F3387–19, ''*Standard Practice for Respiratory Protection,"* when respiratory equipment is needed.

Under the proposed rule, MSHA would require that the respiratory protection program would be in writing and would include the following minimally acceptable elements: program administration; standard operating procedures; medical evaluations; respirator selection; training; fit testing; and maintenance, inspection and storage.

As previously stated regarding **question 37**, under the hierarchy of controls, which is a long-standing policy, respirators can be another effective way to protect miners. OSHA and NIOSH support the use of respiratory protection when the use of feasible engineering and administrative controls are not able to reduce miner exposures to or below the PEL.

BMC believes MSHA needs to revise the proposed rule to allow the use of respiratory protection equipment as an acceptable method of compliance. A Respiratory Protection Program would ensure that respirators are properly used and are effective in protecting the miners.

§ 60.15 – Medical Surveillance

Currently there are no comparable medical surveillance requirements in the existing MSHA regulations.

The proposed rule would require mine operators to provide mandatory medical examinations to miners, at no cost, who begin in the mining industry after the effective date of rule and offer voluntary periodic examinations to all others.

The proposed rule would require that the mandatory initial medical examination occur no later than 30 days after a miner new to the industry begins employment. MSHA would require that the 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 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.

The proposed rule would require mine operators to make medical examinations available to each miner, at no cost to the miner, regardless of whether the miners are "reasonably expected" to be exposed to any level of respirable crystalline silica.

Starting on the proposed effective date, mine operators must provide the opportunity for an examination to miners no later than 5 years after the date of their last medical surveillance, during a 6-month period that begins no less than 3.5 years and not more than 4.5 years form the end of the last 6-month period for medical examinations.

The proposed rule would also require medical examinations to be performed by a PLHCP or specialist.

The medical examinations are required to include the following:

- Provided by a PLHCP or specialist.
- Mandatory initial medical examination that includes a review of the miner's medical and work history and a physical examination, focused on the respiratory tract.
- Chest X-ray, which must be classified by a NIOSH-certified B Reader, in accordance with the Guidelines for the Use of the International Labour Office (ILO) International Classification of Radiographs of Pneumoconiosis.
- Pulmonary function testing, including spirometry.

The proposed rule would require that the results of any medical examination performed under the proposed rule section be kept confidential and provided only to the miner.

Mine operators would be required to obtain a written medical opinion from a PLHCP or specialist within 30 days of the medical examination that includes only the date of the miner's medical examination, a statement that the examination has been the requirements of the proposed rule sections and any recommended limitations on the miner's use of a respirator. The proposed rule would require the mine operator to maintain a record of the written medical opinions obtained from the PLHCP or specialist.

The proposed rule would require the mine operator to maintain a record of the written medical opinions obtained from the PLHCP or specialist.

Regarding **questions 32 and 35,** again as previously stated, for decades, BMC has adopted the National Industrial Sand Association's (NISA's) *Occupational Health Program for Exposure to Crystalline Silica in the Industrial Sand Industry* and *Silicosis Prevention Program* (now National Stone, Sand and Gravel Association (NSSGA)), which medical surveillance is a component.

Also as previously stated regarding exposure monitoring, MSHA does not define the "at some level" "reasonably expected" to be exposed threshold. It is so broad that every miner that works at BMC is "reasonably expected" to be exposed "at some level" to respirable crystalline silica.

The *OSHA Silica Standard* specifically states that employers must make an initial or period medical examination available to employees who meet the exposure trigger. The exposure trigger for medical surveillance is exposures at or above the action level for 30 or more days a year.

BMC believes that MSHA should require medical surveillance to be mandatory for, both new hire and on a regular basis thereafter for all miners "reasonably expected" to be exposed respirable crystalline silica who meet an exposure trigger provision like OSHA.

BMC's current medical surveillance program is based on every 3 years; however, it is not always conducted exactly at 3-year increments. For example, the medical surveillance might be 3 years and 4 months depending on when the miner's last exam and when the on-site medical van is scheduled.

BMC does support MSHA's provision that mine operators must provide medical surveillance to miners no later a specified number of years, but within a certain range (no later than 5 years after the date of their last medical surveillance, during a 6-month period that begins no less than 3.5 years and not more than 4.5 years form the end of the last 6-month period for medical examinations).

Some mine operators, like BMC, make participation in medical surveillance a mandatory condition of employment. BMC requests MSHA clarify that mine operators are allowed to do this as long as they meet MSHA's minimum medical surveillance requirements.

The results of all medical examinations, including but not limited to those with a specialist, should go to the miner and pertinent information to the mine operator. Mine operators need medical surveillance results pertaining to occupational diseases that they are obligated to prevent in their workplace. Without knowing the test results that indicate if a miner shows signs of a disease or not, the mine operator cannot adequately manage and protect miners. Mine operators cannot make informed decisions on miner placement, jobs, tasks and the effectiveness of control measures, which are essential to protect miner health.

BMC believes very strongly mine operators must receive results of medical exams pertaining to silica health effects.

§ 60.16 – Record Keeping

The proposed rule would require the mine operator to retain the associated exposure monitoring records (sampling and semi-annual evaluations) for at least 2 years. Examples of exposure monitoring records include the date of sampling or evaluation, names and occupations of miners who were sampled, description of sampling or evaluation method and laboratory reports of sampling analysis.

Second, the proposed rule would require mine operators to retain records of corrective actions made for at least 2 years from the date when each corrective action was taken.

Third, the proposed rule would require mine operators to retain any written determination records that are received from a PLHCP or specialist. When a PLHCP or specialist certifies in writing that a miner cannot wear a respirator, including a PAPR, that miner must be temporarily transferred to a different work area or task where respiratory protection is not required (or needed). In such cases, mine operators would be required to retain the written determinations by a PLHCP or specialist for the duration of the miner's employment plus 6 months.

Fourth, the proposed rule would be required to maintain written medical opinion records that they obtain from a PLHCP or specialist who conducts medical examinations of their miners. The mine operator would receive from the PLHCP or specialist a written medical opinion that contains the date of the medical examination, a statement that the examination had met the requirements under the proposed rule and any recommended limitations on the miner's respirator use. Upon receipt, the mine operator would retain the medical opinion for the duration of the miner's employment plus 6 months.

Regarding **questions 33 and 40,** BMC believes that MSHA's proposed recordkeeping timeframe to retain the associated exposure monitoring and corrective actions records of at least 2 years is woefully inadequate.

BMC believes the proposed rule should require mine operators to retain the associated exposure monitoring records and corrective actions indefinitely.

BMC also believes MSHA's proposed recordkeeping timeframe to retain written determinations and medical opinions by a PLHCP or specialist for the duration of the miner's employment plus 6 months is also woefully inadequate.

BMC recommends that MSHA follow OSHA's requirements that workers' medical records be kept indefinitely.

Again, please enter our comments as outlined above below into record and strongly consider each.

Sincerely,

Brandon Hess
Executive Vice President of Operations

Erica R Grant
Erica Grant
Executive Vice President of Operations