September 11, 2023

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

Re: MSHA-2023-0001-0002

We are grateful for the opportunity to comment on the Mine Safety and Health Administration (MSHA) request for comments on *Lowering Miners' Exposure: Respirable Crystalline Silica and Improving Respiratory Protection*. The National Coalition of Black Lung and Respiratory Disease Clinics is a coalition of nearly 60 black lung clinic sites in 15 states. Our clinics serve 13,000 former coal miners annually. Our members are on the front lines of the trends and developments in black lung disease. Since the late 1990s, we have witnessed firsthand the progressively worsening toll that black lung disease has taken on our patients, their families, and our communities. It is therefore with great interest and concern that we provide these comments on this important issue.

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.

The review of the research literature relating to the risk of disease due to exposure to respirable crystalline silica (RCS) was thorough and consistent with scientific consensus. We agree with MSHA's preliminary determination that RCS exposure increases the risk of development of silicosis, non-malignant respiratory disease, lung cancer, and renal disease. We note that RCS exposure is also associated with other diseases, including autoimmune diseases such as rheumatoid arthritis and systemic sclerosis, although sufficient data to model the risk of these diseases related to cumulative exposure are lacking.

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?

We agree with MSHA's reliance of the risk model employed by OSHA in support of OSHA's silica rule. However, we believe that MSHA's determination of the reduction of disease with enactment of the proposed PEL in coal miners likely underestimates the benefit relative to currently observed rates of disease in contemporary coal miners. Among the results of the Preliminary Risk Analysis, MSHA found that an estimated 66 silicosis, NMRD, lung cancer, and kidney disease deaths among coal miners would be prevented in the 60 years after promulgation of the proposed Part 60. This was based on modeling in which coal mine dust samples from 2016-2021 were employed to estimate excess risk of health effects of coal mine dust exposure assuming RCS levels not exceeding the "indirect PEL" of 85.7 $\mu g/m^3$ ISO compared to the proposed PEL of 50 $\mu g/m^3$. As described in the Preliminary Risk Analysis, only 1.9% of the quartz samples from coal mines in 2016-2021 exceeded the 85.7 $\mu g/m^3$ ISO level representing the current indirect PEL, and 6.9% exceeded the proposed PEL of 50 $\mu g/m^3$. We note that modeling for MNM miners employed RCS sample data from 2005-2019. Broadening the analysis of inspector quartz samples from coal mines to include samples from 2005-2016 shows 9.9% of quartz samples exceeding 85.7 $\mu g/m^3$ and 25.8% exceeding 50 $\mu g/m^3$.

A reduction in rates of pneumoconiosis or other silica-related disease among coal miners has not yet materialized as a result of the lower quartz levels observed in the 2016-2021 period, but this is unsurprising due to the latency of disease and also prior higher exposures to RCS. Given the far higher rate with which coal mine dust samples exceeded the "baseline" and proposed PEL parameters prior to 2016, we therefore expect a fully adhered to PEL of 50 $\mu g/m^3$ would provide much greater health benefits to future coal miners than estimated by the Preliminary Risk Analysis.

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.

We agree with MSHA's choice of the study by Miller and MacCalman as an appropriate selection in the modeling lung cancer mortality under the proposed PEL and action level for the reasons described by MSHA.

Technological Feasibility of the Proposed Rule

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.

We agree that the proposed medical surveillance requirements are technologically feasible. Pulmonary and occupational medicine providers, chest radiography, and spirometry testing are sufficiently common and widespread, including in rural communities, as to permit the proposed examinations of MNM workers. As noted in the proposed rule, the procedures comprising the proposed medical surveillance are commonly conducted in the general population.

MSHA correctly pointed out that the availability of digital radiography allows for the electronic transmission of chest radiographs to remotely located B readers. For these B readers to perform their role effectively, the digital radiographs must be of excellent quality. Digital radiographs can be acquired using computed radiography (CR), in which x-ray signals are acquired using a cassette-based photostimulable storage phosphor. Digital radiographs can also be acquired using digital radiography (DR) technology, in which x-ray signals are received by an image detector and converted to electronic signals without moveable cassettes. These methods of chest radiograph acquisition are in contrast to radiographs acquired using an analog film screen and then scanned or photographed to generate digital images. Digital images derived from analog film images are *not* appropriate for classification for pneumoconiosis, and it is notable that this type of image is not authorized for use for the screening of coal miners, as described in 42 CFR 37.42(j)(1). We suggest that MSHA incorporate existing regulation governing chest imaging for coal miners in the proposed health surveillance of MNM miners. If possible, DR imaging should be recommended over CR imaging due to the higher quality imaging that results from the DR modality.

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.

Although a direct evaluation of the Preliminary Regulatory Impact Analysis is outside the scope of our response, we note that, given our position that the Preliminary Risk Analysis underestimates the health benefit of the proposed PEL for coal miners, a fuller analysis of historical dust samples from coal mines would indicate that the benefits are even greater than indicated in the proposed rule.

Definitions

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.

In the proposed rule, MSHA defines objective data as "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" and would include data that "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." We do not believe it is appropriate to allow mine operators to assume that objective data, as defined here, are representative of actual RCS levels. This is particularly important given the significant pulmonary toxicity of RCS and the proposal to not require subsequent periodic sampling if the first baseline sample is below the action level, as workers may unknowingly be exposed to higher than intended RCS levels without the direct confirmation provided by the second baseline sample.

Proposed Permissible Exposure Limit

13. MSHA is proposing a PEL for respirable crystalline silica of 50 µg/m3 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.

We agree with MSHA's proposal to establish a standalone PEL for respirable crystalline silica dust in coal mines, replacing the current indirect regulation of respirable quartz. As evidenced by the resurgence of pneumoconiosis among coal miners and research findings of the important contribution of silica to disease in contemporary coal miners, the current indirect approach to limiting silica exposure in coal miners has not been effective. In practice, reducing the total respirable dust PEL for coal mines based on percent quartz in the sample prioritizes control of total respirable dust over respirable quartz. That is, assuming the same percentage of quartz in subsequent exposures, meeting the adjusted total dust PEL means that a miner is exposed to respirable quartz at around 100 $\mu g/m^3$. As illustrated in the Preliminary Risk Analysis, there remains substantial risk of disease related to RCS exposure at 100 $\mu g/m^3$ compared to 50 $\mu g/m^3$. Thus we agree with MSHA's approach to specifically targeting the more severely pulmonary toxic RCS with a standalone PEL.

Methods of Compliance

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

We agree that rotation of miners should not be a means by which a mine achieves compliance with the proposed PEL. Rotating miners through a high-exposure task or location increases the number of miners exposed to high concentrations of RCS, and permits increased average exposure to RCS across the mine's working population. This is in contrast to other administrative controls, such as limiting the amount of time miners work in return air in an underground coal mine, in which RCS exposure is reduced. As the risk of silica-related disease appears to be continuous, rather than associated with any known threshold effect, use of rotation of miners as an administrative control increases the risk of disease and allows a mine to knowingly operate with inadequately addressed RCS levels.

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.

We support the proposed requirement that mine operators must use engineering and administrative controls to limit miners' exposures to RCS. Based on the hierarchy of controls, the only other category of

control to limit RCS exposure within an active coal mine is the use of personal protective equipment. The use of personal protective equipment, generally in the form of respirators, to limit miners' exposure to RCS poses a number of potential problems. First, respirators must fit properly in order to perform their function. However, training in the proper donning of respirators is often lacking. Also, the presence of facial hair interferes with the quality of the respirator fit and therefore miners with facial hair have lesser protection with use of respirators. Second, there is essentially no real-time feedback or means to determine whether a respirator is effectively reducing exposure to respirable dust. Respirable dust particles are not visible to the unaided human eye, are odorlesss, and may provide no other information to the miner that they are inhaling high concentrations of them. An ineffective respirator may then provide a false sense of security that the miner is protected from a dusty environment, all while contributing to their cumulative exposures of RCS dust and increasing their risk of future disease. Third, the use of respirators may interfere with a miner's work. Respirators increase the difficulty of performing heavy labor by increasing respiratory load and, thus, the "work" of breathing. This may have the net result of miners removing their respirators in order to ease breathing difficulties, negating some of the benefit of using a respirator. Respirators may also interfere with a miner's safety by impeding verbal communication. Fourth, there is uncertainty about the effectiveness of some respirators, at least in coal mining environments. Multiple lawsuits have been filed against companies producing respirators claiming the respirators were defective and permitted the development of severe pneumoconiosis. It is clear that the use of respirators are a deeply flawed solution for all but the most limited situations. Because of the insufficient effectiveness of respirators to limit individual miners' exposure to respirable dust, we therefore believe that MSHA should require that mine operators rely primarily on engineering controls to limit dust exposure, with administrative controls as adjunct measures.

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.

In our reading of the proposed rule, it was unclear whether MSHA inspectors would continue to perform sampling for quartz. In the public hearings for the proposed rule, MSHA stated that their inspectors will continue to sample for quartz as they do currently. We wish to underscore the important role MSHA inspectors have in independently measuring RCS levels in mines. Our black lung clinics routinely encounter former miners who state that operator sampling is often not representative of actual mining conditions, whether, for example, because the devices were placed in intake air, were placed inside lunchboxes, or given to the miner assigned a role with very low expected dust exposure.

Given the importance of silica in the pathogenesis of lung disease, it is critical that all mining activities with significant potential generation of silica be subject to dust sampling. One flaw in the current approach to dust sampling in coal mines is that some development/construction activities, such as cutting of slopes through rock, are not subject to dust sampling. It is these development activities that arguably places coal miners at greatest individual risk of silica-related diseases. Although the proposed rule indicates that all "typical mining activities" are to be sampled, it is vague on what constitutes typical mining activity. It is of paramount importance that the miners performing this work be included in the protection, and the final rule must explicitly require that development/construction activities be included in the sampling. It also needs to be made clear that "typical mining activities" mean that the sampling is performed at something approaching full production, similar to mandating a minimum of 80% full production in the setting of sampling for respirable dust in coal mines.

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.

We suggest that MNM and coal mine operators be required to facilitate worker participation in health screenings, including paid time to undergo the exams, as many miners work long hours that conflict with their ability to undergo routine health examinations on their own time. Also, examinations should be arranged for all eligible miners, and miners then allowed to "opt out" of participating. This should be done to encourage greater participation in health screening than might occur if miners had to arrange these appointments themselves. Participation would likely be greater if there was absolute confidence that the results of examinations would be kept strictly confidential between the miner and the examining providers and clinics.

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. MSHA 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.

Study quality, whether for chest radiography or spirometry, is of critical importance to properly detect abnormalities and, just as importantly, prevent false positives in the form of opacities mistaken for pneumoconiosis or poorly performed spirometry misinterpreted as evidence of impaired lung function. Due to the highly important role study quality plays in accurate detection of disease, we recommend that

MNM operators be required to utilize facilities that demonstrate they meet quality standards established by NIOSH for spirometry and chest radiography. We believe this is currently best accomplished by requiring participating facilities be NIOSH-certified for the test(s) they provide.

The proposed program for medical surveillance of MNM miners would benefit greatly from having a central repository for screening test results and associated findings that is accessible by participating health care providers. The absence of a central repository to handle chest radiographs and spirometry test results hinders the longitudinal evaluation of multiple tests. This is of particular importance with spirometry, in which a miner can suffer marked reductions in their lung function, yet have spirometry results that are "normal". For example, a miner can have a forced expiratory volume in 1 second (FEV1) that is 110% predicted, lose 20% of their lung function, yet still have an FEV1 of about 90% predicted, which is still in the normal range. It is this ability to detect early declines in lung function, even when the spirometry parameters remain in the normal range, that allow miners the best opportunity to make decisions about their health. We encourage MSHA to consider ways to permit the health care providers examining MNM miners the means to review previous tests and share the results with the miner in order to more effectively detect early disease. This is likely best accomplished through the participation of NIOSH in collecting the test results and permitting queries of prior test results of a miner being screened by their PLHCP or specialist at the time. Use of a central repository for pulmonary function test results would have the added benefit of consistency of choice of reference equations for longitudinal comparisons, preventing errors in the detection of lung function decline. Assuming NIOSH administers medical surveillance for MNM miners, we recommend that MNM operators, like coal mine operators, be required to submit for approval a plan for providing examinations.

We believe it would be sensible for all mineral dust-exposed workers protected by the Mine Act undergo the same medical surveillance, regardless of whether they work in coal mines or MNM facilities. A PLHCP or specialist can help workers understand abnormal test results, and would be a benefit to coal miners as it would for MNM miners. The addition of a PLHCP or specialist examination to coal miner health surveillance would be useful in determining whether the miner has any limitations to respirator use, as there appears to be no current means for this to perform this function for coal miners. A PLHCP or specialist could also advise workers of the availability of medical removal programs, including Part 90 for coal miners. For these providers to perform their roles effectively, they may require initial education relating to, for example, the spectrum of disease caused by RCS, coal mine dust, and other respiratory hazards, as well as the availability of medical removal programs for miners.

We believe the proposed requirement for MNM operators to keep medical surveillance for the duration of a miner’s employment plus six months is reasonable. This assumes that the information held is restricted to the written medical opinion containing date of medical examination, statement that the examination met the requirements, and any recommended limitations on the miner’s use of respirators, as indicated in the proposed rule.

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 proposed components of periodic medical examinations, including chest radiography and spirometry testing, are commonly used in occupational respiratory surveillance, and are sufficiently widely available to allow the objective of early detection of occupational lung disease to be met. Diffusion capacity testing should be considered as well, as this test may also detect early disease independent of spirometry and chest x-ray findings. Computed tomography may provide additional sensitivity to detect early disease or

identify other pulmonary physiologic abnormalities. However, the additional expense of computed tomography, its lesser availability, and a lack of training and testing in the use of a widely accepted system for the classification of radiographic abnormalities associated with occupational lung disease argues against its current application in MNM miner respiratory surveillance.

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.

We believe that results of examinations, whether normal or abnormal, should be communicated directly with the affected worker. It is critically important that a worker's health information be kept confidential, and that no test results or even attendance at a surveillance examination be communicated to their employer. Workers should also be protected from having to reveal abnormal findings to employers outside of the context of a medical removal program similar to Part 90 for coal miners.

As discussed in our answer to question 33 above, it is also important that NIOSH receive data from examinations, including chest radiograph results, spirometry tests, and reports of disease or decreased lung function to monitor disease trends on an ongoing basis. Other relevant information affecting interpretation of the data should be collected, including age, height, sex, occupational history, and smoking history. These data would allow MSHA to monitor the effectiveness of dust controls through epidemiologic analysis of the collected data.

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.

Silica-related diseases are preventable, and their occurrence is evidence of chronic overexposure. Once silica-related disease is identified, further exposure should be limited or stopped in order to reduce the likelihood of further progression. Due to the frequent absence of respiratory symptoms in early silica-related lung disease, however, concerns about financial or job security may take greater precedence than health considerations in the mind of a MNM miner if they are given a choice of changing job roles in the absence of pay and other protections. In order for screening for early lung disease to be successful, workers must feel sufficiently reassured about the security of their jobs and income to participate. We therefore believe that MNM miners should be provided similar medical removal rights as those entitled to by coal miners in Part 90.

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.

The use of respirators to limit miners' exposure to RCS poses a number of potential problems. First, respirators must fit properly in order to perform their function. However, training in the proper donning of respirators is often lacking. Also, the presence of facial hair interferes with the quality of the respirator fit and therefore miners with facial hair have lesser protection with use of respirators. Second, there is essentially no real-time feedback or means to determine whether a respirator is effectively reducing exposure to respirable dust. Respirable dust particles are not visible to the unaided human eye, are odorless, and may provide no other information to the miner that they are inhaling high concentrations of them. An ineffective respirator may then provide a false sense of security that the miner is protected from a dusty environment, all while contributing to their cumulative exposures of RCS dust and increasing their risk of future disease. Third, the use of respirators may interfere with a miner's work. Respirators increase the difficulty of performing heavy labor by increasing respiratory load and, thus, the "work" of breathing. This may have the net result of miners removing their respirators in order to ease breathing difficulties, negating some of the benefit of using a respirator. Respirators may also interfere with a miner's safety by impeding verbal communication. Fourth, there is uncertainty about the effectiveness of some respirators, at least in coal mining environments. Multiple lawsuits have been filed against companies producing respirators claiming the respirators were defective and permitted the development of severe pneumoconiosis. It is clear that the use of respirators are a deeply imperfect solution to all but the most limited situations. We believe respirators are best used by individual miners to further reduce their exposure to respirable dust in environments where dust is already adequately controlled. Any other use of respirators, if permitted by MSHA, should be strictly limited in terms of duration of use and the maximum levels of respirable silica and total dust in which they may be employed.

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 effectiveness of respirators is dependent on a proper fit, which requires initial and refresher training, along with practice. We previously emphasized the importance of environmental and administrative controls as the primary means to reduce miners' RCS exposure. To help further reduce individual risk of disease, respirators may be a useful option, and we believe training in their proper use should be required in MNM and coal miners. Training is also important for those miners who should not be wearing respirators as well (e.g., miners with facial hair) to prevent them from improperly using respirators, unknowingly without the benefit of protection from dust-related diseases.

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.

The reduced dust standards from 30 CFR and Part 90 functioned to limit quartz exposure to 100 $\mu g/m^3$. With the introduction of the standalone PEL for silica of 50 $\mu g/m^3$, we agree that the total respirable dust PEL for coal mines no longer requires adjustment based on quartz level.