Comments of the United Mine Workers of America
Respirable Silica
Docket No. MSHA-2016-0013
RIN 1219-AB36
October 25, 2019

The United Mine Workers of America ("UMWA" or "Union") is in receipt of the Request for Information ("RFI") from the federal Mine Safety and Health Administration ("MSHA" or "Agency") regarding respirable silica (quartz) and offers the attached comments in response.

At the outset, the Union must express its frustration and displeasure with the Agency for issuing an RFI rather than take concrete action to protect the Nation's miners from exposure to harmful levels of silica dust. MSHA has long known what measures it must take in order to ensure healthful work environments for the nation's miners. MSHA has a responsibility to enact those measures. The UMWA must question MSHA's motives in its decision to shirk that responsibility by refusing to forcefully respond to the current resurgence of Pneumoconiosis. It is with that criticism in mind that the UMWA offers the comments below.

I. Introduction

On June 19, 2019, the UMWA along with the United Steel Workers ("USW") sent a joint letter to Assistant Secretary Zatezalo concerning this very issue. The letter laid out the evidence that proves we are facing an epidemic of black lung and PMF that is being caused, in large part, by silica exposure. The letter also gave recommendations as to how the Agency could better protect miners from respirable coal and silica dust. Among these recommendations were:

- Lowering the allowable concentration limit of silica;
- Requiring the use of NIOSH's end-of-shift silica sampler (Field Analysis of Silica Tool);
- Sampling more miners on a more frequent basis;
- Addressing high silica cutting situations;
- Working closely with the medical community.

On June 20, 2019, President Roberts testified before Congress about the effects of coal dust and silica exposure on the lives of America's miners. President Roberts' testimony set forth the history of black lung in the United States, the numerous incidences of fraud on the part of the mine operators, and the historical lack of adequate enforcement by MSHA. President Roberts also made several recommendations to Congress to address the appalling abuse that miners in this country still face. Specifically, President Roberts recommended, among other things:

1) Congress must require the federal Mine Safety and Health Administration to assume the responsibility for conducting all respirable dust sampling. This will ensure mine operators are in compliance with all aspects of the Respirable Dust Sampling Program. The standard must require that a Representative of the Secretary be present for all such sampling for the entire duration of the sampling process.

2) Congress must require the federal Mine Safety and Health Administration to promulgate an emergency temporary standard that creates a separate Permissible Exposure Limit ("PEL") for silica. The Standard must set the PEL at the current level recommended by the National Institute for Occupational Safety and Health.

3) Congress must require the federal Mine Safety and Health Administration to promulgate an emergency temporary standard that expands the 103(f) "walk around" rights afforded miners. The standard must afford Representatives of the Miners the right to participate in all activities conducted by a Representative of the Secretary while on mine property or in any activity that directly impacts the health and safety of miners at the operation.

4) Congress must also require the federal Mine Safety and Health Administration to address the problem of miner representation and participation at mines *not* represented by a recognized labor organization. Those mines must be targeted to ensure compliance with all aspects of the Mine Act and all rules promulgated by the Agency to advance the safety and health of the miners. MSHA targeting should be active in nature and include accident reporting, compliance history and notice of patterns of noncompliance with all health and safety laws. Given the seriousness of the problem known to exist at these operations, MSHA should immediately start auditing and appropriately targeting these types of operations.

The issuance of the RFI by the Agency, despite all of the information contained in the joint letter and the annotated testimony of President Roberts, validates the Union's belief that MSHA intends to continue to ignore this issue.

Based on the statements contained in MSHA's ("RFI") the ("UMWA") does not believe the Agency fully recognizes the serious risks to miners' health posed by respirable crystalline silica. The Union is extremely disappointed with the Agency's decision to issue an RFI rather than proposing an emergency temporary standard limiting silica exposure. Issuing this RFI will not only further delay action that is immediately necessary to protect the health of the Nation's miners, it virtually ensures these miners will be exposed to the well-documented hazards associated with silica dust for years to come. The Agency has mountains of information and detailed data that clearly identify the dangers associated with silica and the health hazards miners face. There are countless studies and reports from government agencies, public and private health organizations, and health care experts regarding the detrimental effects that the inhalation of silica dust has on

the human body. Based on this data, there is no doubt that the rise in pulmonary disease among miners, including the most aggressive form of black lung, Progressive Massive Fibrosis (PMF), can be attributed directly to exposure to silica in respirable coal mine dust.

II. Legal Framework of the Mine Act and Respirable Dust Regulation

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

The Mine Act is also very clear regarding the requirements for protecting miners from exposure to respirable dust. Section 201(b) of the Act states, "it is the purpose of this title to provide, to the greatest extent possible, that the working conditions in each underground coal mine are sufficiently free of respirable dust concentrations in the mine atmosphere to permit each miner the opportunity to work underground during the period of his entire adult working life without incurring any disability from pneumoconiosis or any other occupation-related disease during or at the end of such period." The Mine Act states that MSHA is required to ensure that the Mine Atmosphere is free from dust to the levels prescribed in the Act or by regulation. Congress was well aware, at the time of the writing of the Mine Act, that some operators would seek to circumvent this standard using respirators and sought to eliminate that possibility. Section 202(h) of the Mine Act addresses that concern by stating, "[u]se of respirators shall not be substituted for environmental control measures in the active workings."

The Agency does not possess the authority to override the plain language of the statute as written by Congress. MSHA is likewise prohibited from repealing or diminishing a mandatory health standard. Any attempt to diminish the protections afforded by the Mine Act or by regulations promulgated under the Act violates Section 101(a)(9) of the Mine Act, which provides

in relevant part: "No mandatory health or safety standard promulgated under this title shall reduce the protection afforded miners by an existing mandatory health or safety standard." The Union recognizes, as MSHA must, that any effort to mitigate miners' exposure to excessive levels of dust using mandatory Administrative Controls is plainly and strictly prohibited by law. Based on the mandatory legal standards established by Congress in 1977, any further discussion regarding the use of any type of personal protective equipment to reduce dust exposure is a moot point. Congress demanded clean air, no exceptions.

The course outlined in MSHA's RFI, which would permit operators to circumvent the law regarding PPE runs roughshod over Section 101(a)(9), amounts to an admission that operators either cannot or will not do what is necessary to protect the health and safety of the miners they employ. In either case, the Union has made its position clear on this matter. Should an operator fail to meet the standards required by law to protect the nation's miners, they should no longer be permitted to remain in the industry. MSHA should immediately seek to have all such mining operations shut down.

III. The Nature and Scope of the Respirable Silica Dust Epidemic

Any notion that special exceptions should be made to the legal requirements regarding PPE because of "new" threats posed by silica has no basis in law or fact. MSHA has been aware for quite some time that quartz dust presents a grave threat to the respiratory health of the nation's miners. The question that must be addressed by the Agency is not what is causing the recent resurgence in Pneumoconiosis among miners, including younger less experienced miners. We already know the answer to that question: increased dust exposure. Instead, the question must be what steps are necessary to limit exposure and eradicate the disease.

In fact, MSHA has already asked that question and received the answer, it has just not listened. In 1996, NIOSH's *Advisory Committee on the Elimination of Pneumoconiosis Among the Nation's Coal Workers* issued a report making recommendations regarding, among other things, respirable dust exposure. Specifically, NIOSH recommended a standard of 1.0 mg/m^3 (milligrams per cubic meter of air) of respirable dust. NIOSH also recommended a 50 $\mu g/m^3$ (micrograms per cubic meter of air), Permissible Exposure Limit ("PEL") for silica. The Advisory Committee also recommended adjusting the PEL to consider extended work weeks. Members of the Committee were concerned that, even at lower levels of exposure, more hours worked would result in dangerous levels of cumulative exposure.

MSHA did not adopt NIOSH's well-reasoned recommendations. Despite the known hazards and warnings from health care professionals and medical experts, MSHA continues to cling to a Threshold Limit Value ("TLV") established by the American Association of Government Industrial Hygienists ("ACGIH") in 1973. Significantly, MSHA continues to use the 1973 TLV, despite the fact that the ACGIH has abandoned it. In 2000, the ACGIH revised its TLV for exposure to quartz to 50 $\mu g/m^3$ and since that time has reduced it further to 25 $\mu g/m^3$. In

response to these actions, the Occupational Safety and Health Administration (OSHA) recently promulgated a rule limiting exposure to respirable quartz dust to 50 µg/m³. As a result, MSHA remains the only governmental safety and health agency using the antiquated and dangerous PEL established in 1973. To complicate matters further, MSHA has never measured quartz in isolation, rather it measures the quartz content as a component of respirable coal mine dust. This is unacceptable.

While the UMWA rejects the idea that the risks associated with silica dust exposure are new and that MSHA lacks the necessary knowledge to tackle the issue, we recognize that silica-related occupational lung disease in miners has increased in recent years. MSHA, along with several other agencies, have identified two underlying factors for the increase in silica exposure to miners. First, federal agencies have noted that mining thinner coal seams, which inevitably results in cutting more extraneous material, such as rock bearing quartz. Second, agencies have observed that the mining industry has used large, more powerful mining machinery that pulverizes silica (and other dangerous materials) into greater amounts of respirable dust. While most of the dramatic increases in occupational lung disease are reflected in the historic resurgence of Pneumoconiosis in central Appalachia, (primarily Virginia, Kentucky, and West Virginia) there is cause for concern across the entire mining industry.

The UMWA acknowledges the reality that dust generated by these new mining methods do pose a significant risk to miners. However, the UMWA would stress that the use of new mining methods does not occur in a regulatory vacuum. That is to say, the Union believes that MSHA, the agency responsible for protecting miners, has often been more concerned with approving new and dangerous equipment with an eye towards improving production than with the health and safety of miners. It is not MSHA's primary job to simply approve equipment for use in the mining industry. Production, if it is a matter for MSHA to consider at all, should be secondary to concerns over safety. Instead, it is MSHA's mission to ensure the health and safety of miners so that they may, in accordance with Section 201 (b) of the Mine Act, "…work underground during the period of his entire adult working life without incurring any disability from pneumoconiosis or any other occupation-related disease during or at the end of such period." MSHA's unwillingness to take actions that it knows are necessary to reduce respirable dust exposure and its short-sighted focus on increasing production is causing enormous and irreparable harm to the nation's miners.

The UMWA likewise acknowledges the reality that mining seams in some sectors of the country are thinning and that this is a factor that cannot be altered. However, MSHA has exacerbated the problems that have arisen as a result of thin seams by approving mining machinery that does not, when initially placed into production, include adequate methods of controlling coal mine dust including quartz. MSHA must consider the types of controls to protect miners from exposure to coal mine respirable dust when making decisions regarding what equipment to permit on mine property. If MSHA fails to provide clear and concise direction to the manufacturers of mining machinery, the agency abandons its responsibility to ensure a safe and healthful working

environment and instead places the onus on manufacturers to take proactive steps in the design and development of equipment without regulatory input. Absent such input, the use of new equipment will inevitably subject miners to the life-threatening consequences of Pneumoconiosis. The Agency seems to have forgotten that its primary responsibility is to protect the health and safety of the miner.

With the causes of silica-related occupational lung disease clear, the consequences of inaction are inevitable. While the Agency has been acutely aware of the hazards associated with miners' exposure to respirable quartz dust for decades, recent testimony before the United States House of Representatives Committee on Education and Labor Subcommittee on Workforce Protections. June 20, 2019, reaffirmed the need for MSHA to take immediate action to protect miners.

United Mine Workers of America, International President Cecil E. Roberts testified as to the horrendous number of miners who have succumbed to the ravages of Pneumoconiosis. He noted that, "…since May of 2003, over 18,000 miners have died in this country from Black Lung. And if Congress again fails to act, that number is expected to skyrocket in the coming decades." These facts are bolstered by reports from various news agencies around the country including National Public Radio (NPR) whose investigative journalists reported that, "Black Lung Clinics in Pennsylvania, West Virginia, Virginia and Ohio discovered 962 cases of the disease from 2010 to 2015. This is nearly ten times the number of cases reported by NIOSH during those five years."

President Roberts also noted that, "On July 13, 2010 and again on March 27, 2012, I came before the House Committee on Education and Labor and the House Committee on Education and the Workforce, respectively, to discuss the disaster at Massey Energy's Upper Big Branch Mine South ("Upper Big Branch" or "UBB") in Montcoal, Raleigh County, West Virginia. While the overriding context of that testimony dealt with the events leading up to the mine explosion and its aftermath, the information I submitted and the testimony I gave predicted, that if action was not taken by Congress and the Agency, we would witness the Black Lung crisis we are discussing today. The fact that miners worked in such a dusty atmosphere offers great insight into the prevalence of black lung disease in many of the miners killed in the disaster. Of the 24 miners, between the ages of 24 and 61 whose lungs could be examined during autopsy, 17 or 71 percent, showed some stage of black lung. The Union has been raising these concerns routinely for years. However, like so many other efforts to protect workers, the legitimate warnings about Black Lung the Union has raised have been ignored by industry, MSHA, and Congress."

During the same hearing, Robert Cohen, MD, FCCP, a professor of Medicine at the Northwestern University Feinberg School of Public Health and Director of the Occupational Lung Disease Program at Northwestern University made three critical points in his testimony. "First, there is extensive evidence that there is a resurgence of Black Lung in the United States, especially in its most severe form. Second, there is evidence indicating that overexposure to respirable

crystalline silica is an important contributing factor to this resurgence. Third, there are short- and long-term policies that MSHA should adopt to stem the resurgence of Black Lung disease." These facts lead Dr. Cohen to determine that the data shows "…significant evidence that the disease is not just mild, but in fact, the most severe disabling forms of this preventable disease are occurring in younger miners."

John Howard, MD, Director, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Department of Health and Human Services noted that, "The scientific evidence published to date demonstrates that the crystalline silica component of respirable coal mine dust contributes to the prevalence of pneumoconiosis in coal miners… This situation is expected to worsen as eastern reserves become thinner and more challenging to mine."

None of the testimony from these experts regarding the consequences of inaction is new to MSHA. The Agency has been aware of the risks posed to miners from quartz dust for decades and chosen to do nothing to correct the problem and eliminate the hazard. This inaction can be tied to the current and historic resurgence in the Black Lung we are witnessing today. It is not an exaggeration to state that MSHA has failed at its primary responsibility to protect miners from contracting Pneumoconiosis, as defined by law. Despite decades of warnings and evidence from countless sources, the Agency turned a blind eye to the needs of miners.

IV. Known Solutions to the Respirable Silica Dust Epidemic

Not only have the risks of silica exposure long been known but so have the solutions. First and foremost, to end this epidemic MSHA must drop its resistance to separating quartz from the agency's current definition of respirable coal mine dust. MSHA must create a rule that specifically regulates quartz/silica. While the Union would agree that quartz is a component of coal mine respirable dust, the current regulation of reducing the overall dust standard when quartz is present at a level of five percent or greater in the mine atmosphere is not sufficiently protective. Because of the extreme hazards posed to miners from quartz, MSHA can no longer delay taking action to correct this problem.

The issuance of this RFI is not a solution and can only be seen as a delaying tactic on the part of MSHA. The UMWA objects to MSHA attempt to, once again, forestall taking any action on respirable silica dust. Rather than deal with an extremely pressing issue and issue an emergency temporary standard, the Agency has decided to indefinitely postpone action on a matter of vital importance to the health of miners.

The Agency must abandon this charade and immediately move to create a separate PEL, at a level no greater than what is currently recommended by NIOSH, and recently codified in regulation by OSHA. That new 50 $\mu g/m^3$ PEL must be adopted by the agency as a stand-alone

regulation enforceable as any other regulatory standard issued by the Agency. The Agency has sufficient data from countless sources that the current resurgence in Pneumoconiosis is the direct result of miners' exposure to excessive amounts of respirable coal mine dust, most importantly to the huge increase in exposure to quartz dust. Any further delay in issuing an emergency temporary standard will only exacerbate this problem and create a greater health crisis in the mining industry.

In addition to creating a separate silica standard, MSHA must also create a new standard for monitoring quartz levels. Under the current standard, quartz is measured using a gravimetric cyclone sampling device that must be sent to MSHA by the mine operator for analysis. This process is slow, antiquated and ineffective. Analysis of a sample takes several days to a week before the results are known, permitting miners to be subjected to a potentially hazardous atmosphere for an extended period of time after sampling has concluded. Further, MSHA requires quartz sampling only once per quarter. This practice also potentially permits miners to work in areas of the mine where excessive amounts of quartz dust is present for extended periods of time. In reality, a miner could be overexposed for over 3 months before the Agency and mine operator are required to take any affirmative action to correct the situation.

While the Union understands that there is currently no instantaneous, tamper-proof quartz sampling device approved for use in the mining industry, NIOSH and private sector companies are making great strides in producing such a device. MSHA must become an active participant in the development of this technology in order to ensure its effectiveness and to facilitate its rapid use in the industry. These sampling devices, once approved, must be immediately deployed as a compliance tool. Sampling devices must be utilized to determine the quartz content in the mine atmosphere and MSHA must use the data collected from those devices to enforce respirable dust regulations.

The Union would, therefore, demand that MSHA repeal this RFI and instead issue an emergency temporary standard that requires the Agency to provide both financial and technical assistance in the development of a real-time quartz sampling device. The standard should also require that the current, gravimetric sampling device shall continue to be used to monitor quartz exposure only until such time as a new real-time device is deployed for use in the industry. However, the current program must be amended so that quartz is sampled using the gravimetric device no less frequently than once a month. Finally, this standard must be promulgated to recognize the primacy of new technology. Therefore, it must be written to permit the seamless deployment of the real-time quartz sampling device while, at the same time, affecting the retirement of the gravimetric device whenever that transition becomes feasible.

The Union demands, as it has several times previously, that immediate action be taken to limit miners' exposure to respirable quartz dust. The only way for MSHA to accomplish this goal

is to issue an emergency temporary standard. That standard must be based on sound scientific and medical data.

The new standard must include language that:

1) Lowers the Personal Exposure Limit (PEL) from 100 µg/m³ (100 micrograms per cubic meter of air) to no greater than 50 µg/m³.

2) Requires MSHA to fully commit to developing and deployment a real-time silica monitoring device for use in the mining industry, with the aid of NIOSH and the private sector

3) Creates a new regulatory standard requiring that the PEL for silica be separate and distinct from the Respirable Dust Standard and enforceable in accordance with all other standards established by the Agency.

4) Requires MSHA to implement a sampling program for silica similar to the current Respirable Dust Sampling Program, including sampling frequency.

5) Requires MSHA to be responsible for conducting all respirable dust sampling used to ensure mine operators are in compliance with all aspects of the silica standard.

V. Conclusion

MSHA has pointed out in the RFI that, "…engineering or environmental controls are the primary means to control respirable dust in the mine atmosphere." This interpretation of the law is consistent with sections 201(b) and 202(h) of the Mine Act. However, the RFI also indicates that MSHA has pre-determined that current engineering controls cannot control respirable dust in mines, as required by law. The Agency points numerous times to "…the limited use of either approved powered air-purifying respirators (PAPR), administrative controls, or a combination of both for compliance purposes in those circumstances where further reduction of dust levels cannot be reasonably achieved using all feasible engineering controls." The UMWA notes that any reference it makes with regard to respirators also includes powered air-purifying respirators. ("PAPR").

This is not a consideration the Agency is permitted to contemplate when considering its regulatory agenda. The Union adamantly opposes the Agency's attempt to abandon the underpinnings of the Mine Act and diminishing health and safety regulations specifically designed to protect miners from respirable dust in the mine atmosphere.

The Agency also states in the RFI: “Under MSHA's existing coal standards, however, miners are not compelled to wear respirators and mine operators cannot use respirators as a substitute for engineering or environmental controls. In addition, MSHA cannot credit mine operators' use of respiratory protection in achieving compliance”

The UMWA agrees with MSHA’s on this point. However, the assertion by MSHA that “…existing engineering or environmental controls may not be adequate to continuously protect miners’ health in areas where there are high levels of quartz dust.” is not an established fact. Rather, the Union believes MSHA is considering using respirators in order to illegally achieve compliance and lessen the regulatory burden on mine operators. Permitting such action would open the door for the Agency to promulgate a standard in the future that would reduce or eliminate engineering and environmental as the primary methods of controlling respirable coal mine dust. The UMWA completely and emphatically rejects this attempt to circumvent the intent of Congress and demands that MSHA does so as well.

According to the Mine Act, respirators are never to be considered a means of controlling respirable coal mine dust, nor are they to be used to achieve compliance with the dust standard. There are a range of problems associated with the use of respirators that effectively prohibit in-mine use. In 1969, Congress found that the type of work performed in the mining industry was not compatible with the use of respirators. Ensuring the device is donned properly and retains a continuous seal around the miners’ nose and mouth is simply impossible. This is especially true with miners who have facial hair. It is the Union’s experience that miners are often not adequately trained in the selection or use of respirators. These factors will inevitably lead miners to believe they are being protected when in fact they are not.

The perfect example of this false sense of protection was the basis for a lawsuit by two miners against the 3M Company (“3M”). The miners sued after developing black lung disease even though they wore respirators produced by 3M for use in the mining industry. The jury determined that the miners had developed black lung disease largely because the respirators were ineffective and did not protect them from breathing in excessive amounts of respirable coal mine dust. The jury found that the respirators were in such a “defective and unreasonably dangerous condition” that 3M should not have marketed and sold the equipment for mining use. In March, the Kentucky jury awarded the miners $67.5 million in damages. There have been numerous suits concerning defective respirators in recent years, however, monetary settlements cannot compensate these individuals for the damage to their lungs and the shortening of their lives.

MSHA must continue to recognize engineering controls as the primary means to eliminate respirable dust within the mine atmosphere and achieve compliance. The UMWA supports the voluntary utilizing personal protective equipment as a supplement to engineering controls. However, the Union deems mandatory use of respirators to be illegal and beyond

MSHA's authority. The use of respirators as a means of complying with the dust standard is contrary to the Mine Act, provides miners with a false sense of protection, and is not feasible for all miners.

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