

**The National Association of Manufacturers Statement Before the Informal Public
Hearing for the Proposed Rule on Occupational Exposure to Respirable
Crystalline Silica**

Docket No. OSHA-2010-0034, RIN 1218-AB70

U.S. Department of Labor
Frances Perkins Building Auditorium
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Introduction

Good afternoon, the National Association of Manufacturers (the NAM) appreciates the opportunity to testify today regarding the Occupational Safety and Health Administration's (OSHA) Notice of Proposed Rulemaking on Crystalline Silica (Proposed Rule). We ask this oral statement, in its entirety, be inserted into the hearing record as the next numbered exhibit.

The NAM is the largest manufacturing association in the United States, representing small and large manufacturers in every industrial sector and in all 50 states. Manufacturing employs nearly 12 million men and women, contributes more than \$1.8 trillion to the U.S. economy annually, provides the largest economic impact of any major sector, and accounts for two-thirds of private sector research and development. Founded in 1895, the NAM is the powerful voice of the manufacturing community and

the leading advocate for a policy agenda that helps manufacturers compete in the global economy and create jobs across the United States.

I am joined by my colleague, Amanda Wood, Director of Labor and Employment at the NAM. I would like to start our testimony today by sharing NAM's policy with regard to workplace health and safety, which was recently reaffirmed by the NAM's Board of Directors, comprised of over 200 board members.

“The NAM believes employers are responsible for providing a safe and healthful work environment and conducting effective occupational safety and health programs. These programs are essential to good employee relations and sound business practices. Employers must be able to maintain and utilize their authority and freedom to fulfill these responsibilities in the best way possible given their individual operations, equipment, workforce and business circumstances.”

“Manufacturers believe both employers and employees have important roles in maintaining safe workplaces. To achieve our shared goals of maintaining safe workplaces, the Occupational Safety and Health Administration (OSHA) should be as much of a resource for manufacturers as it is an enforcement agency. Improving safety is most effective when all parties—employers, employees and OSHA—work together to achieve better results.”

This policy follows the history and intent of the OSH Act as expressed by an early leader in this area, the Honorable M. Chain Robbins, Deputy Assistant Secretary, of the Department of Labor. Deputy Assistant Secretary Robbins presented a discussion on the OSH Act to the NAM on March 22, 1972 – nearly 42 years ago to the day. In that presentation he indicated that “Congress presented us with great potential and a great challenge. The essence of the Act is cooperation.”

We would like to stipulate at the outset that we are not technical experts. Accordingly, if there are technical questions about our presentation, we would be happy to take them to experts within our membership and hope to address them in our post-hearing comments.

We seek to offer the perspective of the overwhelming majority of our members who believe the Proposed Rule is an unnecessary change that will be unachievable for many manufacturers, and will be more costly than OSHA estimates for all affected employers. If adopted as proposed, based on comments received from our members, we believe the standard will lead to businesses having to decide whether they can even continue to operate in the United States. Employers have worked for decades to achieve compliance with the current PEL and, through these efforts, have adopted the best possible and most cost-effective ways to keep all their employees safe. Importantly, credit for this success goes to the employers who have worked over the last 75 years to control exposures to respirable crystalline silica (silica) in their workplaces – often voluntarily. It is the efforts of employers, and especially those

responsible for safety and health practices in individual workplaces, that deserve recognition for the changes that have resulted in such a dramatic drop in reported cases over recent decades.

We acknowledge there are still industries having difficulty achieving the current standard. It is important to recognize this and we believe manufacturers and the agency should work together to address those situations. Simply lowering the current standard ignores the reality we face.

As OSHA has heard, this rule will have wide-reaching effects on a large number of manufacturers both directly and indirectly. Due to the number of manufacturers impacted by the adoption of this proposed rule, the breadth and diversity of industries and activities, and the sheer volume of material to be analyzed, the NAM made two requests to extend the comment period.

While each extension OSHA granted was welcomed and helpful, planning in this context is necessarily based on what is, rather than what might be. Furthermore, the extended time period would have been a fraction of the time the agency has had to develop this proposed rule. The NAM believes had OSHA provided the additional time requested, comments and input from industry would have been more informative and helpful to the agency.

In the end, the NAM believes assertions made by the agency of conducting an open process for this rule will prove unfounded, and that OSHA's actions will have deprived the agency and the public of the opportunity to perform a thorough review of the impact of the Proposed Rule prior to the agency's final action on this matter. OSHA's statements that these hearings combined with pre and post-hearing comment periods "will provide ten months or more for stakeholder input on the proposed rule" is troubling. OSHA has had over ten years since the SBREFA panel was convened to review the record and prepare the proposal before us. This is highlighted by the fact that OSHA provided stakeholders with only two hours during this hearing process in which to question or clarify thousands of pages of regulatory text and supporting information from OSHA, its peer review panel and National Institute for Occupational Safety and Health NIOSH.

Notwithstanding, the Department of Labor adopted "Rules of Procedure for Promulgating, Modifying or Revoking OSHA Standards," codified in 29 CFR 1911, which state: "The presiding officer shall provide an opportunity for cross-examination on crucial issues." See 29 CFR 1911.15(b)(2). Surely, this rule, due to its sheer volume alone, falls into the same category as the ergonomics' rule from the 1990s, as containing "crucial issues" in which stakeholders, and the agency alike, should have the opportunity to cross-examine each other on these issues. We note, during that administrative hearing for the ergonomics' rule 17.5 hours were allotted to ask questions of the OSHA panel over multiple rounds of questioning. This is in stark contrast to the process we are currently engaged in, which appears to be resulting in more contention

than cooperation. Unfortunately, this will result in a rule that is less informed than it can or should be.

We are particularly concerned about statements made last week at the hearings that seemed to indicate less weight would be given to those choosing to testify, but not submitting to open-ended examination from the agency and others. Frankly, this is one of the difficulties we face as an association in further informing discussions with direct testimony from manufacturers. Whether before the agency itself, or a Congressional panel, individual companies are reluctant to put themselves on record in a forum that too often becomes an adversarial process, rather an exchange of views on the impact of existing or new regulations.

Our comments and testimony today are focused primarily on policy issues consisting of the significant risks and reduction in risk requirements, feasibility to comply with the proposal, the requirement to use engineering controls over other methods, and some real-world costs and consideration associated with implementing all the requirements. In addition to our policy concerns, the NAM will provide examples of the proposal's impact we received from our members. We would also like to note we support the comments on this proposal filed and discussed in this proceeding by the U.S. Chamber of Commerce and American Chemistry Council's (ACC) Silica Panel (Silica Panel), the Construction Industry Safety Coalition (CISC) and the American Foundry Society (AFS).

Now I would like to turn our testimony over to my colleague, Amanda Wood.

AMANDA WOOD:

Thank you, Joe. I would also like to thank you for the opportunity to testify this afternoon. I will focus my portion of the NAM's presentation on the significant risk and reduction of risk requirements, issues with feasibility, and the accuracy of sampling. But first, I want to discuss that in the Preliminary Economic Analysis (PEA) OSHA states there are at least 24 manufacturing industry subsectors, identified by the North American Industry Classification System (NAICS) codes, which would be affected by the proposed standard. Among these are asphalt paving products, asphalt roofing materials, foundries, concrete products, cut stone, dental equipment and supplies, flat glass and other glass products, hydraulic fracturing, iron foundries, jewelry, mineral processing, mineral wool, non-ferrous sand casting foundries, non-sand casting foundries, ferrous sand casting foundries, paint and coatings, porcelain enameling, pottery, ready-mix concrete, refractories, refractory repair, shipyards, and structural clay. Collectively, the NAM has members in each of the 24 manufacturing industry subsectors, and all of them would be affected by the proposed standard.

It should be noted that, in the limited time we had to review the volumes of detailed information related to the Proposed Rule, we discovered that several NAM members have NAICS codes that OSHA did not include in the 24 subsectors listed, although these manufacturers know their employees work with silica-containing

materials and may be exposed to silica. For example, we identified the following codes that were not included: 332215 (metal kitchen cookware, utensil, cutlery and flatware), 333249 (other industrial machinery manufacturing), 326191 (plastics plumbing fixture manufacturing), and 331529 (other non-ferrous metal foundries—except die-casting). We pointed this out in our written comments to the agency and raise them again here today, because it clearly indicates the data and estimates contained in the PEA are incomplete and as a result underestimate the economic impact of this Proposed Rule.

Many of the tasks associated with the NAICS codes identified by the agency will be performed by employees of the manufacturing facility. In the circumstances where these tasks are performed by outside contractors, there are several likely scenarios under which employees of the manufacturing facility would be exposed to RCS. First, many contractor activities will be subject to coordination by employees of the manufacturing facility (host employer) in its role as the general contractor. Second, many contractor activities will require the ongoing support of employees of the manufacturing facility. Third, many contractor activities are likely to be performed in the same area where the host employer's employees are working. We have not been able to identify any recognition, much less discussion or analysis, of these activities in the PEA and their impact on the manufacturing employees or the costs associated with addressing any compliance issues for them. Again, based on this fundamental flaw, we believe the data and estimates contained in the PEA are inadequate.

Thus, nearly every manufacturing employer will incur costs associated at least with assessing potential exposure from tasks that are nominally covered by the proposed standard, but for which OSHA has not shown that there is a significant risk of material impairment of health or functional capacity.

Significant Risk and Reduction of Risk Requirements

Next, the NAM is skeptical of OSHA's extrapolations of RCS exposure from studies of occupations where substantial exposure has occurred in the past, to those occupations where exposure to RCS occurs infrequently and at low levels. As OSHA states, it is cumulative exposure to RCS that determines the degree of risk. It follows that OSHA should show by scientific evidence that conditions in manufacturing industries produce RCS exposures of sufficient magnitude and for a sufficiently long period of time to warrant the additional steps OSHA proposes to impose wherever some potential for exposure to RCS occurs. The NAM does not believe OSHA has validated its assertions on this point.

Without any justification, OSHA makes the assertion that surveillance data are insufficient for the analysis of residual risk associated with exposure to RCS, and that such an analysis must be based on exposure-response data. But, OSHA does not have any exposure-response data at exposures below the current PEL that show any risk of harm. In other words, rather than relying on real world evidence of residual risk from a very large exposed population, OSHA asserts that it should instead utilize theoretical

models to estimate that risk based on extrapolation from the estimated risk at exposures that are far higher than the current PEL.

Feasibility

Turning now to the feasibility issue, manufacturers generally may have employees with potential RCS exposures if maintenance and modifications to the physical facilities involve tasks where silica-containing building materials or structures have to be modified to make necessary changes. The tasks involved include drilling with hand-held tools, drywall finishing, and using tools like jackhammers and concrete saws, among others. Because manufacturers represented by the NAM will have employees who are outside contractors performing this work, and will only infrequently and sporadically be involved in projects with potential RCS exposure, adopting the controls OSHA proposes will have minimal benefit because of the minimal risk such tasks involve.

Among the manufacturers most concerned with this proposal are our foundry members. These foundries are directly affected by every provision of the proposed standard. We believe the comments filed by the American Foundry Society demonstrate the infeasibility of the proposed PEL for the foundry industry and that OSHA has only superficially examined the experience of the industry in attempting to meet the existing PEL. Because the foundry industry has been a focus of attention, the fact that OSHA's feasibility conclusions as to the proposed PEL are unfounded and so far off the mark

with respect to foundries suggests that OSHA's general conclusions on the feasibility of the proposed PEL are also not convincing.

The NAM believes OSHA has not accurately considered the difficulties in complying with the PEL solely through engineering controls, especially with regard to maintenance activities. We received the following comment from one of our members in the glass industry:

“Exceedences of the PEL can and do occur in our facilities especially involving maintenance and/or cleaning activities. There are occasional conditions where maintenance cleaning is performed inside conveyor enclosures where the enclosure is ordinarily a part of the dust control systems. This is just one example of where a control would have to be breached in order to properly maintain it as well as the operating equipment. It is simply not technically feasible to establish engineering controls for all possible maintenance activities. There has to be allowances for upset conditions where maintenance and cleaning of systems is required. Respirators must be allowed for such periods. Even the engineering controls themselves require maintenance and cleaning periodically. It is especially not feasible to have engineering controls FOR the engineering controls. Maintenance activities in all of our sand/batch handling systems have to be performed quite regularly due to the abrasive and corrosive nature of the silica itself and other materials in the process.”

Further, this member explains that proposed paragraph (f)(3)(i) specifically requires HEPA filtered vacuums, and that it seems to the exclusion of any other technology. Many glass batch houses, for example, are currently equipped with central vacuum systems that discharge external to the facility and are EPA permitted as a discharge. This would seem to be equivalent, in terms of worker exposure control, to a HEPA vacuum and should be allowed by the new standard. Additionally, this member pointed out that the Proposed Rule would prohibit the use of compressed air to clean surfaces and equipment. Again, there is some equipment and circumstances when other methods are just not effective.

While we certainly agree that the use of compressed air in some instances can contribute to RCS exposures, there are many situations where there is no other practical alternative. This may be due to the characteristics of the material or the space, or where the use of water would be unacceptable because it would cause property damage or even create the potential for an explosion (e.g, near molten metal in a foundry). We believe that employers, rather than OSHA or its contractors, are in a better position to judge whether, for a particular task, it is better to use compressed air with appropriate protection or to use other methods.

In another case, a member told us he was asked by one of his customers to certify that his products were silica-free or fully complied with OSHA's new exposure limit. Such a certification is difficult to make under most circumstances – and in some cases impossible – given that products are used in vastly different ways and silica is so

prevalent in nature. For this company, the new exposure limit will force them use more refined and vastly more expensive materials, which in turn will make them less competitive in their key export markets versus their foreign competition. Yet it remains unclear whether the risks of RCS exposure from incidental quantities of silica in products are the same as those from historically high RCS exposures.

This same member pointed out several other issues his company will face with a lower PEL and the materials they use for their products:

“Several key raw materials used are raw materials at risk because of the naturally occurring crystalline silica content in them. These raw materials are all silicate based minerals used in a broad spectrum of end-use applications ranging from coatings, paints, as functional fillers for resins and polymers, personal care products, pottery and ceramics, etc.... In one case, the product we currently employ has no viable alternative of lower crystalline silica content. This material offers some unique performance properties, which are not available from other types of raw materials. Additionally, other types of material have alternatives with lower crystalline silica content that are commercially available, however, these grades are highly refined products targeted to uses in consumer, personal care products. The additional mineral processing costs associated with producing these highly refined grades will make them too expensive to be economically viable for use in the industrial application areas we serve. The personal care

grades are frequently three to four times more expensive than the industrial grades we have to employ to be competitive in our markets.”

The replacement or substitution of raw materials due to the new proposed standard does not appear to be adequately addressed in OSHA’s cost analysis.

Accuracy of Sampling

With respect to the accuracy of sampling, in question 47 of the Proposed Rule, OSHA asked for comments on its assessment of the available sampling and analytical techniques for measuring exposure to RCS, especially at the proposed PEL and action level.

To assess compliance with the proposed PEL of 50 micrograms and action level of 25 micrograms, OSHA would have employers arrange for sampling and analysis in accordance with OSHA Method ID-142. According to the OSHA web site, that method has an “overall analytical error” of +/- 26 percent and has been validated for a working range of 50 to 160 micrograms with a recommended sampling rate of 1.7 liters/minute, which results in a total volume of 816 liters over eight hours.

In OSHA’s preamble discussion of analytical accuracy, OSHA states that the method has a precision error of +/- 23 percent at a working range of 50 to 160 micrograms, and a sampling and analytical error (SAE) of +/- 19 percent. OSHA adds to the confusion by failing to explain the relationship between an “overall analytical error”

of +/- 26 percent and the combination of a precision error of +/- 23 percent and a sampling and analytical error of +/- 19 percent. Although the agency does not acknowledge the problem, we would like to point out that a sample of 50 micrograms (the bottom of the working range that has been validated for Method ID-142), yields an exposure level of 61 micrograms in a full-shift sample. In other words, to achieve the PEL, Method ID-142 must be applied to a quantity of RCS smaller than the smallest amount for which the method has been validated when collected according to the specified protocol. The agency then states, without explanation:

OSHA's Salt Lake Technical Center (SLTC) evaluated the precision of ID-142 at lower filter loadings and has shown an acceptable level of precision is achieved at filter loadings of approximately 40 micrograms and 20 micrograms corresponding to the amounts collected from full-shift sampling at the proposed PEL and action level, respectively. This analysis showed that at filter loadings corresponding to the proposed PEL, the precision and sampling and analytical error for quartz are ± 17 and ± 14 percent, respectively.

This statement, however, is misleading. If all error other than sampling and analytic error were eliminated, and the sampling and analytical error was 14 rather than 19 percent, then a test result of 43 micrograms would only indicate a possible range of exposures between 36 and 50 micrograms. Thus, for an employer to consistently achieve an exposure level of 50 micrograms, it would have to achieve an actual

exposure level of no greater than 43 micrograms; yet OSHA has acknowledged that 50 micrograms is the lowest feasible PEL. (Preamble at 78 Fed Reg. 56283).

Even if it was technically and economically feasible for an employer to obtain the measurements required to establish this average exposure level, it would be virtually impossible for OSHA to duplicate that effort in the course of its enforcement investigations. Furthermore, this incredibly burdensome monitoring procedure would not be required solely for the initial assessment, but for each quarterly or semiannual periodic monitoring measurement.

Given the burdens imposed by all of the other ancillary requirements that would be triggered by an exposure level in excess of the PEL, it would be unreasonable to have those requirements triggered by a technically and economically infeasible testing regime. In other words, OSHA has demonstrated that the measurement of exposures at the proposed PEL and Action Limit cannot be reliably performed to demonstrate compliance with the proposed PEL and Action Limit, and that compliance with the proposed PEL is technically and economically infeasible. OSHA has not discussed the other methods NIOSH has reviewed and for which NIOSH provided statistical analyses of their performance. OSHA should demonstrate that these methods are inferior to the proposed method before requiring laboratories and the regulated community to substitute what appears to be an inadequate technique.

At this point, I will turn the presentation back over to Joe, who will conclude with a discussion on engineering controls and cost concerns.

JOE TRAUGER:

The NAM held its bi-annual Board of Directors meeting March 12-14, and I can tell you OSHA's proposed silica standard came up a number of times in conversations I had with our members. With respect to the accuracy of the sampling, there is a genuine concern among our members about whether it will even be possible to know for certain whether they are in compliance with the lower permissible exposure limit.

Engineering Controls

With respect to engineering controls, OSHA's primary reliance on engineering controls means employers will necessarily rely on increasing the amount of ventilation and air movement to reduce the amount of RCS in the workplace. OSHA's analysis suggests that simply increasing ventilation rates will control exposures, but the law of diminishing returns means that the increase in the quantities of air to be moved, cleaned, and replaced will increase costs and decrease effectiveness exponentially. Those changes in volume and the increased number of vents that exhaust silica particulates into the outdoor environment will likely require employers to update federal, state or local environmental air emission permits. In addition, they will result in greatly

increased energy costs for the heating and cooling of these huge volumes of additional air.

Air quality permits take considerable time and monetary resources to obtain and modify. Because of the requirements for public input on Clean Air Act permits, we can anticipate that OSHA's implementation time frame is too short, possibly by three to five years or more. Simply obtaining the necessary installation and operating permits on an expedited basis can take six months or more. For example, Ohio has an Air Permit-to-Install and Operate Program that has a statutory time frame for issuing the permit of 180 days. The agency review period does not include the time to (1) determine what if any changes are necessary that will require modifications to the air and operating permits of a facility, (2) design the changes, (3) prepare the appropriate documents, and (4) submit the application. The NAM has not found an analysis in OSHA's PEA in which OSHA accounts for these requirements. Nor does OSHA account for the need and cost to participate in the public review process or for possible extensions if there is significant public opposition or comment.

In developing the proposed rule, OSHA has established a hierarchy of controls familiar to other OSHA standards involving airborne health hazards. Specifically, OSHA requires that an employer bring exposure levels below the PEL through a range of complex and intensively expensive engineering controls such as the use of wet assisted dust suppression equipment, vacuum assisted equipment, and ventilation systems. As discussed below, manufacturers can spend millions of dollars on ventilation systems,

only to discover afterwards that these costly infrastructure expenses resulted in little or no appreciable gains in controlling silica exposures.

OSHA proposes that: a) wherever feasible, the employer should use engineering and work practice controls; and b) where engineering and work practice controls do not reduce exposures to or below the PEL, the employer shall use them to reduce exposures to the extent feasible and supplement those measures with respiratory protection. This provision is based on a policy adopted as a good industrial hygiene practice before OSHA was created, and while OSHA attempts to justify its continued inclusion in every substance-specific health standard, OSHA's analysis fails for several reasons, which are explained in the next section of these comments.

In addition to engineering controls, OSHA permits work practice controls; however, it prohibits the use of job rotation that is implemented strictly for the purposes of reducing exposure to RCS. This is without justification and ignores the wide body of evidence that reducing the cumulative exposure in this manner is an effective practice to achieve the goal of the Proposed Rule.

The NAM believes the basis for OSHA's apparent antagonism to respirator use as a primary method of exposure management is outdated and premised upon outdated respirator designs that are no longer in use. OSHA believes that respirators are not foolproof because they require that employees properly select and continuously use respirators, and that employees properly maintain respirators.

Astoundingly, OSHA has therefore neglected one of the most cost effective methods for managing silica exposure. This is unfortunate since, intuitively, the manufacturing community will most broadly adopt the compliance method that is the quickest to implement, easiest to manage and monitor and most cost effective among equally effective alternatives.

We note that the quality and efficacy of respirators has improved dramatically over the last 40 years. Respirator manufacturers are consistently improving the technology to assure better fitting and more reliable devices. It does not appear OSHA has taken these improvements into account.

One of our members stated, “We already employ significant safety measures to protect our workers...our plants in terms of having ventilation systems designed to reduce airborne dust to safe levels and the employment of personal protection equipment such as respirators. If the exposure limits are further reduced by the new regulation we may have difficulty complying with those exposure limits from a practical everyday practice standpoint with our current mineral raw materials. This could force us to use more refined, more expensive mineral pigments that will make us less competitive in our key export markets versus foreign competition.”

Additionally, we also know some of our members have been investing in powered air-purifying respirators attached to helmets (or air helmets), which provide

clean air effectively and with less potential for inadequate fit or efficacy. Members tell us that they have used these air helmets and that their employees prefer them over other PPEs. OSHA has not considered information that is publicly available about these air helmet devices, among others, and has not, to our knowledge, spoken to the effective and less costly alternative they provide for employees and employers.

Several questioners have argued that the helmets can be noisy and interfere with communication in the workplace, require reliance on employees to use them properly, and require continued maintenance. As we noted in our comments, engineering controls suffer from the same defects: they can create noise and other obstacles to clear communication, they require employees to use them properly, and require continued maintenance and upkeep.

Further, the requirement to incorporate “all” feasible engineering and administrative controls is an unbounded requirement that OSHA needs to revise, because employers will never know when or if they are in compliance. This represents poor public policy and creates unnecessary confusion and uncertainty. OSHA should endeavor to make its requirements clear and base them on objective criteria so employers know what standard is to be met while allowing flexibility in achieving compliance. Moreover, because the proposed requirements become increasingly expensive and provide reduced benefit as controls are added to the regime, they will become economically infeasible and will exceed the bounds of what is reasonable for each affected industrial sector.

Real World Costs

We support the comments refuting OSHA's preliminary economic analysis and submit the numbers contained in the PEA are inaccurate and based on data not relevant to 2014. To give you a snapshot of how underestimated these costs are, we heard from members who were able to do a quick analysis of what they believe it would cost to implement the rule. One company in particular shared with us that it would cost \$1 million just to purchase and run a new dust collector in one facility. In addition, OSHA calculates the cost of ventilation to be \$5.33 per cubic feet per minute. Our member tells us that this is well below the actual costs they experience of \$20 per cubic feet per minute, which does not take into account engineering, air modeling and permitting costs.

With respect to training costs, OSHA estimates it will cost \$2.00 to train each employee under the Proposed Rule. To our membership, this is simply not a rational or reasonable estimation. One member explained that it will take them approximately one hour to cover all the topics for the new training. They price their employees' time at \$30 per hour, which includes their hourly pay and benefits. The cost of lost production on top of that would be several hundred dollars per hour per employee depending on the employee's position. The bottom line here, is that OSHA has severely misjudged the costs industry will face to implement and maintain compliance with this new regulation.

Conclusion

I will conclude by respectfully suggesting that OSHA does not appear to have employed the best available evidence to determine whether this proposed regulation is feasible and may well force manufacturers to spend millions of dollars on ventilation systems, new equipment and training costs - only to discover afterwards these costly infrastructure and capital expenses resulted in little or no appreciable gains in controlling silica exposures and have made them less competitive.

The NAM advocates for policies that make manufacturing in America more competitive globally. In many ways manufacturing is poised for a comeback in the United States, but if we continue to ignore the opportunity before us and build barriers, impose burdens or otherwise hinder the ability of this important sector to succeed, we face disappointment in the future. Manufacturing is not only critical to the health of our economy, it is vital to the security of our nation.

Since our country's founding, American manufacturers have answered the call of our nation in its times of need. This regulation will have a direct impact on the infrastructure we rely upon to answer that call when it comes. Few regulations have such profound long-term consequences on how we provide for our economic and national security. We cannot get this wrong.

One member recently shared with me his concern that if the proposed rule is adopted as written, we may not be able manufacture the things we need in order to provide for our national defense.

Indeed, many manufactured products used in things such as aircraft, ships, and weapons systems are made in factories where the exposure to RCS may occur. We cannot afford to lose these defense industry capabilities, because once lost they are extremely difficult to regain. Recent world events demonstrate the dangers that remain and the risks posed to all Americans. An over reliance on foreign sources for key defense material and capabilities could be an unintended consequence of an overly-aggressive standard. Again, we cannot get this wrong.

Accordingly, the NAM submits that the best action for OSHA to take is to withdraw its proposed rule on occupational exposure to respirable crystalline silica until the agency can properly address these issues using the best available evidence.

Thank you for your time and consideration. We would be pleased to answer what questions we can today and hope to address others in post-hearing comments. Again, thank you for the opportunity to testify today.