

February 11, 2014

Docket No. OSHA 2010-0034
The Honorable David Michaels
Assistant Secretary of Labor
Occupational Safety and Health Administration
U.S. Department of Labor
Room S-2002
200 Constitution Ave., NW
Washington, DC 20210

Re: Comments to NPRM on Occupational Exposure to Crystalline Silica (Docket No. OSHA 2010-0034)

On behalf of the more than 6,000 members of the American Road and Transportation Builders Association (ARTBA), I respectfully offer comments on the Occupational Safety and Health Administration's (OSHA's) proposed rule on "Occupational Exposure to Respirable Crystalline Silica."

ARTBA's membership includes private and public sector members that are involved in the planning, designing, construction and maintenance of the nation's roadways, bridges, ports, airports and transit systems. Our industry generates more than \$380 billion annually in U.S. economic activity and sustains more than 3.3 million American jobs. The health and welfare of our workers is paramount and ARTBA has received numerous OSHA grants to develop training programs that are designed to improve workplace safety in the transportation construction industry. A diverse number of training materials have been developed including hazard communication, struck-by, fall protection, trenching and health hazards.

The transportation construction industry is highly transient with projects changing on a daily or weekly basis in an array of different environmental conditions. Silica is ubiquitous and can be found in nearly all construction materials and products. Moreover, respirable crystalline silica can be naturally found in the ambient air. As such, even when workers are not cutting, drilling, sawing etc. the material, they may be exposed above the Action Level (AL) of 25 $\mu\text{g}/\text{m}^3$, and, potentially even the proposed Permissible Exposure Level (PEL) of 50 $\mu\text{g}/\text{m}^3$ when they are working on a construction worksite. OSHA is proposing to reduce the PEL for silica for construction work from the current level of 250 $\mu\text{g}/\text{m}^3$ to 50 $\mu\text{g}/\text{m}^3$. The Agency has also proposed an AL of 25 $\mu\text{g}/\text{m}^3$, which triggers the standard's exposure monitoring provisions.

Crystalline silica levels in the natural environment and workplace may exceed the OSHA PEL even when visible dust is not seen by the naked eye. For example, visible dust is understood to be perceptible in the air starting at a concentration of about 5 milligrams per cubic meter of air (5mg/m³). Thus, the exposure level of employees on each shift, for each job classification, in each work area could vary immensely on a given day, location, or project. By creating an AL and PEL at such low levels, there is the potential that every worker walking on any construction site will need to be monitored.

OSHA's issuance of a proposed rule on crystalline silica comes as a time where silicosis mortality has significantly declined. According to the Centers for Disease Control (CDC), the silicosis mortality rate in the U.S. significantly declined – by 93 percent from 1968-2007 – falling from 1,157 cases in 1968 to about 123 cases in 2007. (<http://www2a.cdc.gov/drds/worldreportdata/FigureTableDetails.asp?FigureTableID=2595&GroupRefNumber=F03-01>). The CDC data indicates that silica mortality is vanishing under the current PELs, calculated as an 8-hour time-weighted average, of 250 µg/m³ in construction and 100 µg/m³ in general industry. The National Institute of Occupational Safety and Health (NIOSH) similarly reported there has been a steep decline in silica mortality rates, noting one of the main factors for such a decline is that many deaths in the early part of its study period occurred among persons whose main exposure to crystalline silica dust probably occurred before ancillary preventative measures were deployed, such as technological advances, training, and hazard assessments. This steep decline in deaths indicates that workers are being protected from exposure to silica and exposures are likely to continue to decrease over the years.

Moreover, many of the studies OSHA uses for the proposed rule are based on exposures from the 1930s through 1960s – before the current PEL was implemented and arguably when exposure levels were much greater than those found today. For example, the British Coal Miner study (NPRM page 56299) concerned exposures between 1954 through 1978, when exposures would have been higher and when much of the exposure would have taken place before standards were put into place. Similarly, the Hessel et al., 1988; Hughes et al. 1982; Ng et al. 1987a studies reflected exposures of workers to generally higher average concentrations of respirable quartz than are permitted by OSHA's current exposure limits. In fact, the two studies that OSHA primarily relies upon – Miller et al., 1998, and Ng et al., 1987a – had average exposure ranges as high as 480 µg/m³, which is significantly more than the current OSHA PEL for construction. In short, OSHA is basing the validation of this proposal on research and findings of effects that are outside currently allowable limits. These data in no way demonstrate why existing standards should be tightened.

Lack of Qualified X-Ray Readers: OSHA is also providing requirements to those employers that initiate an initial medical examination due to potential silica exposure. One of these requirements is the use of a NIOSH-certified “B” reader – a physician that is certified by NIOSH as demonstrating a proficiency in classifying radiographs (chest x-rays) for the presence of pneumoconiosis (an occupational lung disease). ARTBA is concerned that should employers determine that medical surveillance be necessary, the dearth of NIOSH-certified “B” readers in the U.S. could cause a gross misinterpretation and misclassification of x-ray results. As OSHA recognizes, there are only 242 certified “B” readers in the United States as of February 12, 2013. NIOSH has noted that if there is excessive interpretations between different readers, reader variability can reduce the quality and utility of the data. Bias can occur when a reader has information concerning the radiograph being classified (including information regarding the worker, such as exposure), by consciously or unconsciously

influencing their classification. For example, in a study comparing interpretations by "B" readers retained by lawyers in asbestos litigation compared to those from an independent blinded panel of "B" readers, there was an exceptionally high rate of disagreement (95.9 percent positive versus 4.5 percent positive, respectively).¹

Qualified Laboratories: Under the auspices of the proposed rule, OSHA has stated that laboratories have two years from the time the rule is finalized to come into compliance while employer obligations will begin at 180 days after publication. ARTBA is concerned that current analytical methods—and the capabilities of the labs to complete an analysis that is reproducible and consistent—are not good enough to measure 50 or 25 µg/m³. OSHA has stated in the proposal that the new proposed PEL limits are so low as to be difficult to measure, yet OSHA has stated that it believes the “good labs can do it.” We question as to how employers, new to this regulatory issue, will be able to determine the competence of a lab?

Introduction of Greater Hazard: As stated at the beginning of our comments, silica can be found on most jobsites and in many construction materials. Should the proposed standard be adopted with its current AL and PEL, many roadway construction operations will likely become subject to OSHA requirements. This raises concerns because the constantly moving nature of our work makes employment of engineering controls in some operations difficult at best, reducing workers' ability to avoid hazards such as the movement of heavy equipment, communication and the danger of being adjacent to high speed traffic. Furthermore, the proposed standard eliminates the ability to rotate personnel as an administrative control—an allowable practice available in other OSHA health regulations. As such, roadway contractors may be forced into placing workers into respiratory protection as the only option.

We believe the use of respiratory protection on roadway construction jobs creates a hazard much more onerous than silica exposure: heat stress/heat stroke. Transportation construction workers labor outdoors during some of the hottest months of the year, often in close proximity to hot mix asphalt. This situation already requires significant planning, acclimation and control measures. When coupling the necessity of strenuously working in high heat, amongst heat generating materials while wearing a respirator, OSHA is creating a significant, real danger to human health that far exceeds the potential hazard from silica exposure.

OSHA has offered Table 1 as an alternative to respiratory protection, where the use of wet methods may negate the need for respiratory protection. While this method is good and useful in some circumstances, it is problematic in others. For example, most roadwork today takes place on existing roadways, the large majority of which remain open to the motoring public. The use of wet methods may create a slippery slurry which becomes a traffic hazard to passing motorists. Moreover, if an automobile slides on this wet, slippery surface, it may cross into the work space and strike a worker. Struck-by hazards are the largest cause of death and injury to roadway construction workers.

¹ Gitlin JN, Cook LL, Linton OW, Garrett-Mayer E. Comparison of "B" Readers' Interpretations of Chest Radiographs for Asbestos Related Changes. *Acad Radiol*, 2004;11:843-856.

Economic Analyses: In addition to the safety considerations, roadway construction is subject to strict "water runoff" restrictions mandated by the U.S. Environmental Protection Agency. The introduction of liquefied construction debris into streams and other waterways will create significant environmental concerns. We have not seen any documentation in OSHA's economic feasibility assessments that include the costs for such environmental mitigation efforts which would be required if wet methods are used.

Also, in terms of the economic analysis presented in OSHA's proposed rule, ARTBA has several points of concern. The economic analysis refers to a number of source materials and data. With the 105-day comment period it is extremely difficult to find some of the original information to validate the very specific economic data used by OSHA in its analysis.

As noted on page 56361 of the Federal Register, OSHA is unable to match up cost data and compliance information at the firm or facility level. As a result, the true per company cost of meeting the proposed standards is unknown. By averaging the cost of compliance across all workers, this could potentially understate the costs of compliance for businesses that could not meet the new standard.

ARTBA also asks OSHA to revise its analysis to include the most recent data available to provide a more accurate economic impact assessment. For example, OSHA refers to the 2006 U.S. Census Bureau Statistics of U.S. Businesses for characteristics of the industries affected by the proposed standard in Table VIII-3. Average profit rates for Tables VIII-14 and VIII-15 are based on the Internal Revenue Source's Corporation Source Book for 2000 through 2006. These are two examples where more current data is available. There have been significant changes in the construction industry, including the number of businesses and value of construction work, since the economic downturn in 2008.

ARTBA is a member of the Construction Industry Safety Coalition (CISC). The CISC will be providing more detailed comments to the proposed rule and ARTBA both agrees with the comments and incorporates them by reference.

We have and continue to look forward to working with OSHA to achieve a healthier workforce. Through mutual respect and understanding, we believe we can continue to protect the health and safety of workers in the transportation construction industry, while meeting our nation's infrastructure needs.

Sincerely,



T. Peter Ruane
President and C.E.O.