

**CONSTRUCTION INDUSTRY SAFETY COALITION**  
**Testimony of Kellie Vazquez**  
**Vice President of Holes Incorporated**

Thank you for providing me the opportunity to testify today. My name is Kellie Vazquez. I am the Vice President of Holes Incorporated and a member of the Concrete Sawing & Drilling Association. I am here to testify on OSHA's Notice of Proposed Rulemaking on Occupational Exposure to Crystalline Silica on behalf of the Construction Industry Safety Coalition ("CISC").

Before I discuss the proposal, I want to tell you a little bit about my company and my experience. Holes Incorporated is a family-owned business that was started by my parents 42 years ago when they decided, after years of my father being a saw cutter, to go into business for themselves. Our employees perform an array of concrete cutting, slab sawing, wall sawing, core drilling, concrete breaking and demolition and load and haul services. The average employee has been with our company for 14 years and we have several employees who have been with us for over 30 years. We recognize that our employees are our number one asset. We simply could not do the work without them and we consider them a part of our family.

Holes Incorporated has an aggressive silica exposure control program. To the extent feasible, we cut concrete wet. We train all employees, field operators, shop personnel, estimators, project managers and executives on the dangers of silica and

how to protect against harmful exposures to the substance. We have learned that due to the ever-changing conditions on job sites and from job site-to-job site, one of the most important aspects of employee training is comprehensively educating employees on recognizing changing conditions on worksites and how these can affect silica exposures.

We have performed exposure monitoring for the tasks that our employees perform. We have historical data on all of our operations and we base the need for respiratory protection on that data. The testing we have is on the tasks we perform and the data includes environment, weather, ventilation, PPE and duration. As you can imagine, there are a range of tasks, conditions, work environments, and locations where we perform our work. That makes conducting exposure monitoring challenging.

Exposure monitoring is also a cost for our Company. Currently it is a cost that we can afford but as proposed in the Standard the cost would be enormous for a small business like Holes Incorporated. A small business who currently performs exposure monitoring probably like mine conducts testing when performing a new task in a new environment or with a new piece of equipment or tool. The data would then be used to ensure protection on future projects. As proposed though a small business like Holes Incorporated could not afford to perform the multiple tests per year required by the Standard. ....

I say this because Holes Incorporated has been recognized as an industry leader in safety, performing jobs internationally and in extremely challenging environments. We have been selected for these jobs because of our safety record. I want to emphasize all of this because my testimony today is based not on hypotheticals, but on reality.

As the Vice President of Holes, I am responsible for supervising our field operators and overseeing the Safety Department. Over the last ten years, I have had the honor of being involved in various initiatives that have addressed exposure to respirable crystalline silica. I participated in the SBREFA process when our CEO Susan Hollingsworth was a SBREFA Panelist in 2003 for this rule and I was a member of the Silica Task Force from 2003-2006. I also contributed and provided guidance for the ASTM standard on the Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica for Construction and Demolition Activities. In addition, I have been a member of the Board of Directors of the Concrete Sawing & Drilling Association since 2009 and have actively participated in several committees. As part of my membership with the Concrete Sawing & Drilling Association, I provided guidance and feedback on OSHA's proposed rule to the CISC.

I will be spending the vast majority of my testimony today focusing on Table 1 – from a very practical perspective. I have studied Table 1 extensively and

discussed it with my fellow participants in the CISC. I understand what OSHA is trying to accomplish with Table 1. And while the CISC appreciates OSHA's attempt with Table 1 to craft a performance-based tool for use in the construction industry that would in theory make compliance simpler, we believe that Table 1 as proposed misses the mark.

As currently drafted, Table 1 is unworkable for most construction employers. And I can tell you with a strong degree of certainty, if this rule were to become final; Holes Incorporated would very likely not utilize Table 1.

First, employers will not use Table 1 due to the "Notes" included in the "Engineering and work practice control methods" section of the Table. From my perspective as someone who will need to review any final rule to ensure we are fully compliant with it, it is not clear from the Silica NPRM whether OSHA considers these notes to be required as part of Table 1, and thus mandatory, or whether these notes are merely provided as suggestions. The Notes were not included in the SBREFA draft published over a decade ago, were not included in the draft given to ACCSH a few years ago, and are such that compliance with Table 1 becomes impossible.

Let's assume for a second that the notes are mandatory. The primary obstacle to compliance in the Notes relates to the requirement that there be "no visible dust" emitted from a process after the introduction of the engineering control methods.

The CISC is concerned that essentially, what OSHA is proposing is a general “dust rule” rather than regulating crystalline silica. While “no visible dust” is a lofty goal, it has no basis in reality in the construction environment. Rarely will there be absolutely no visible dust emitted from a silica generating activity with the use of wet methods or other engineering controls. I can tell you that – from our experience using wet methods in a variety of environments – it is almost impossible for an employer to count on there being no visible dust whatsoever when performing certain operations.

Also OSHA is assuming all visible dust contains silica and a percentage of silica that could be dangerous if inhaled. Visible dust is too large to be inhaled and should not be used as an indication of respirable silica exposure. OSHA must make sure that the protection methods included are based on verifiable studies that show effective solutions.

For certain types of tools, such as grinders and other hand-held pieces of equipment, it is impossible to perform the work with the tool flush against the surface being impacted from start to finish. At times, there must be a gap and this will mean some visible dust is emitted, even when local exhaust ventilation or wet methods are utilized. For example, while using a Hilti DCH 3000 with a dustless package, visible dust will be emitted during the initial cuts into the concrete. The blade guard which guards the blade and contains the local exhaust ventilation system will not touch the

concrete until the blade is into the concrete. The gap as mentioned above will allow visible dust to be emitted. Any employer that utilizes this machine will not be able to use Table 1.

For employers using wet methods, even attempting to meet this “no visible dust” standard will require a tremendous amount of water – many studies discussed in the technological feasibility analysis certainly support this notion. Such large amounts of water run counter to OSHA’s contractor’s assessment that “minimal” water should be used to avoid environmental contamination issues. Many manufacturers have adopted this position and are building tools for cutting, grinding or chipping concrete to use less water. The Agency contends that construction employers can mitigate any environmental concerns by utilizing as little water as possible to prevent accumulations from occurring or potentially damaging residential or commercial buildings. Even if utilizing only a little water will effectively reduce exposures to below the proposed PEL, the CISC has significant concerns that it will prevent *all* visible dust from being emitted.

Compliance with this specification is also made very difficult on a multi-employer worksite, where other employers are performing silica-generating activities. If one employer is conducting operations where visible dust is being emitted, perhaps because the employer has opted not to follow Table 1, it will be a

significant challenge for an employer conducting operations alongside to demonstrate that its dust control measures did not emit any visible dust.

Recently, I was at a conference speaking with a fellow contractor regarding our approaches to crystalline silica. He remarked that implementation of control measures is very dependent on what other employers are doing next to his workers. He described some silica sampling he performed while core drilling on one day where another group of employees was performing sand blasting. The wind carried the dust in the direction of his workers, significantly affecting their exposures. In this situation, it is hard to determine whether your operations are actually producing any visible dust.

I can also tell you from personal experience that performing operations indoors makes it very challenging to perform a task with no visible dust. In addition, for those employees working indoors, Table 1 requires sufficient ventilation be provided to prevent buildup of visible airborne dust. If one contractor has opted not to follow Table 1 and is emitting visible dust, it would be extremely difficult for a contractor using Table 1 to design and implement ventilation that would prevent the buildup of visible dust.

Even if there were times where a process could be controlled such that no visible dust could be emitted, the requirement is so stringent that the CISC does not believe any construction employer will run the risk of relying on Table 1 for

compliance. There are so many variables involved in controlling silica-generating activities that, on any given day, an employer could not guarantee that an activity will not generate at least a little visible dust.

There are other ambiguities and vague terms used throughout the Table that the CISC respectfully asserts will eliminate Table 1 as a realistic compliance option:

- “Change water frequently to avoid silt build-up in water.” This specification provides no guidance on how frequently water should be changed or what level of “silt build-up” is acceptable.
- “Ensure saw blade is not excessively worn.” This specification provides no guidance on what “excessively” means. Furthermore, in which study is it determined that an excessively worn saw blade creates a silica hazard?
- “Cab is maintained as free as practicable from settled dust.” This specification provides no guidance regarding the terms “as free as practicable.”
- “Cab is air conditioned and positive pressure is maintained.” This specification does not account for the fact that few machines are equipped with cabs with these specifications and enclosed cabs could create problems with verbal communication and visual obstructions.



- “Commercially available shrouds and dust collection system.” This specification eliminates specialty-manufactured products that may be equally effective.
- “Prevent wet slurry from accumulating.” This specification does not define what it means by accumulation.

Much of Table 1 requires employers to implement either wet methods or local exhaust ventilation to be in compliance with its provisions. There are times, however, where the nature of the work or the environmental conditions make use of these control measures impossible. There are difficulties associated with cold temperatures and introducing water into a construction environment. OSHA recognizes that water may not be able to be used in certain interior work. Introducing water can also create other hazards, such as cutting tile on roofs. CISC participating association members have identified other situations where the use of wet methods or LEV will not work:

- Selective demolition around or near operating electrical or other sensitive equipment such as “clean rooms” for computer operations.
- Specifications for cleaning/sealing concrete joints often require that no water be introduced to control the dust. When water is introduced

to the cut line compressed air must be used to blow the water out and clean out the joint prior to sealing.

- Work when compacting pavers prevents the use of wet methods or vacuum systems.
- Grinding existing striping to be repainted on roadways.
- Drilling anchor bolts into a vertical face of a concrete surface.
- Removal of fire proofing on columns in refineries.

When a problem with complying with Table 1 arises, the CISC questions precisely how the standard applies. The proposed standard seems designed to have employers “pick” their compliance option up front and then presumably stick with that option. So, an employer would not conduct exposure monitoring if the employer made the decision to choose Table 1. But if a few months down the road, the employer encounters a worksite where Table 1 is not capable of being used, what is that employer’s responsibility with respect to exposure monitoring?

There is also concern regarding the practical implementation of the “4-hour” specification in the Table. While the CISC appreciates what OSHA is trying to do by dividing the table by time spent on an activity, the reality is that contractors will be unable to keep precise track of the amount of time each worker has spent performing a particular task or tasks, such that compliance with Table 1 becomes a realistic option. Contractors currently do not – and the CISC believes will not –

embark on complicated time-tracking of tasks to devise when a respirator is needed or when a respirator is not needed, particularly for workers who perform multiple different tasks included in Table 1 throughout the day. This just will not happen.

From a compliance standpoint, I suspect if a contractor is using Table 1, the contractor will feel the need to err on the side of using respiratory protection. Perhaps this is OSHA's intent with the Table. I know that my employees would express concerns about such significant respirator use, particularly if the task has already been addressed through engineering and work practice controls.

In addition to the above, OSHA has decided to propose an extremely narrow "use" for Table 1. Table 1 is not a safe harbor for construction employers by any stretch. Table 1 should be an outline describing how employers can perform their work and stay below the PEL within an 8 hour TWA. All construction tasks should be listed, corresponding equipment, tools, engineering controls, work practices and PPE when necessary. The Table should be amendable by employers when testing proves compliance with the PEL and exposure monitoring should not expire. As currently written Table 1 is confusing and hard to understand.

My company is in the concrete cutting business. As I stated above, we use concrete slab saws, wall saws, portable hand saws, core drills to cut concrete and we use backhoes, excavators, skid steers, and hydra-hammers to break, demolish and remove concrete. My read of Table 1 is that essentially half of the tasks my company

performs – wall sawing, hand sawing, core drilling, and concrete demolition with heavy equipment – are not included in Table 1. This is just another reason why my company and other companies will not take advantage of this compliance option.

Perhaps the unworkability of OSHA’s exposure assessment provisions in the construction environment will end up ultimately forcing construction employers to utilize Table 1. For this to happen, though, OSHA has to go back to the drawing board and create a new Table 1 with the following concepts in mind:

- Expand Table 1 to include other tasks. In many ways, OSHA has mirrored Table 1 to its technological feasibility analysis. Very broad tasks are set out, along with the engineering and work practice controls and respiratory protection. In the CISC’s view, it is acceptable to put forth some broad tasks, but it also would be helpful to include more specifically-defined tasks in a revised Table. For example, the following would be specific tasks in specific circumstances that, if included in a table, could increase compliance: “concrete slab sawing (indoors)”; “concrete dowel drilling (outdoors)”; “sawing joints in concrete (outdoors)”; “overhead drilling”; and so forth.
- Eliminate the heavy use of respiratory protection. OSHA’s reliance on respiratory protection is analytically inconsistent with its position

that it is technologically feasible to reach the proposed PEL in most construction operations most of the time. Requiring such heavy use of respirators in Table 1 will serve as a significant barrier to their effective use. As OSHA recognizes, wearing respirators, particularly for long periods of time, is uncomfortable for employees. What will happen to those employees who are medically unable to wear respirators? While the CISC appreciates that OSHA is taking a conservative approach with respect to employee protection here, the CISC respectfully asserts that in this situation OSHA has created a tool that will not be used by employees.

- Eliminate the “Notes” in the Table. The “Notes” that are included in the Table are ambiguous, unworkable, and ultimately unnecessary. The CISC has described its concerns with the “Notes” and, as currently drafted, believes they will cause employers *not* to select Table 1 as a compliance option.
- Eliminate specificity regarding wet methods. Throughout the Table, OSHA relies heavily on the use of wet methods. Depending upon the task described, the method of water delivery differs. Thus, if a construction employer is using Stationary Masonry Saws, the

employer must use a saw with an integrated water delivery system. If a construction employer is using a hand-operated grinder, the employer must use a “water-fed” grinder that continuously feeds water. The CISC believes that limiting the delivery of wet methods in this way may reduce the ability of certain contractors to utilize Table 1. If a construction employer finds a way to effectively deliver water through another mechanism, in the CISC’s view that should be encouraged. In addition, the CISC is concerned that certain tools equipped with a water delivery system are so designed to cool the saw blades and not control dust emission.

- Exempt Tasks of Short Duration. OSHA only provides two time frames for compliance under Table 1 – when those tasks are performed under four hours and when those tasks are performed over four hours. The ASTM Standard (Section 4.4.1.3), on the other hand, specifically exempts controls provided for in its Tables 1-5 when employees are engaged in those tasks for 90 minutes or less.

Many of these suggestions go to a fundamental issue for the CISC – Table 1 must be simple and user-friendly or it will not be used. In the CISC’s view, the more “Notes” that are included in the Table the fewer contractors will utilize it. Having a Table that no one can or will use, does little to protect the safety and health of

construction workers. Moreover, Table 1 must be a safe harbor for employers in order for Table 1 to be a viable option for those in the construction industry.

Because of the numerous issues discussed above and in the CISC's comments to the proposed rule, CISC urges OSHA to reevaluate Table 1 as currently proposed.

Thank you.