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OSHA Docket Office

Docket No. OSHA-2010-0034

U.S. Department of Labor, Room N-2625

200 Constitution Avenue NW, Washington, DC 20210

Re: Public Comments on Occupational Exposure to Respirable Crystalline Silica, a Proposed Rule by the Occupational Safety and Health Administration (OSHA) (Docket No. OSHA-2010-0034)

The Tile Council of North America, Inc. (TCNA) on behalf of our 232 members submits the following comments on the Occupational Safety & Health Administration's (OSHA's) proposed rule, Occupational Exposure to Respirable Crystalline Silica, 78 Fed. Reg. 56,274 (Sept. 12, 2013) to be codified at 29 C.F.R. pts. 1910, 1915, 1926.

TCNA is a trade association representing manufacturers and suppliers of ceramic tile products, tile installation materials, tile making equipment, raw materials, and other tile-related products. Our membership includes all major US tile manufacturers, all major US grout and mortar manufacturers, and most US manufacturers of related tile products. Additionally, through our staff we are the Secretary or Chairperson of the ANSI, ASTM, and ISO Committees responsible for ceramic tile industry standards, and through such have a broad awareness of industry stakeholder interests and concerns.

The U.S. tile industry is sizable. In the twelve months ending October 2013, our tile-producing member companies' domestic shipments totaled \$1.071 billion, and our tile-producing member companies employed approximately 10,000 American workers. Additionally, our grout and mortar manufacturing members manufactured approximately \$800 million in mortar products over the same period and other member manufacturers produced a similar volume of related materials (backerboards, trims, etc.) for tile installations.¹

¹ As reported by TCNA members

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This is however a highly import sensitive industrial sector with \$1.670 billion of tile imports coming into this country over the same period², representing 60% of domestic tile consumption on a dollar basis and 70% of consumption on a square foot basis³. Even very modest increases in operating costs and raw material costs pose an existential threat to the industry, as will be further explained in the Economic Impacts section of this letter.

Members of TCNA have decades of experience with dust and silica control technologies. Dust control, especially at the low exposure levels that OSHA is recommending, is complex and challenging. We address herein the following issues in the agency's proposed new crystalline silica rule:

- **Compliance Requirements**
- **Feasibility Determination**
- **Action Level of 25 μ g/m³**
- **Regulated Areas and Access Control**
- **Proposed 29 CFR 1910.1053(d), *Exposure Assessment***
- **Recordkeeping**
- **Dates**
- **Toxicity of Forms of Silica in Raw Materials**
- **Economic Impacts**
- **Proposed 29 CFR 1926.1053, *Respirable Crystalline Silica Standards for Construction***

The following comments reflect the consensus we determined from conference calls and correspondence with our members.

Compliance Requirements

Though OSHA has provided some flexibility in the selection of the protection methods to reduce crystalline silica exposure, the time period allowed to achieve compliance is not feasible. To be compliant with the new rule, reduction of worker exposure to respirable crystalline silica will require companies to implement new engineering and work practice controls. These new controls include additional exposure assessments and monitoring, establishment of regulated areas or controlled access areas, development and implementation of respiratory protection programs, and expanded employee training and recordkeeping, all of which cannot be achieved in the time frames proposed.

² As reported by the U.S. Commerce Dept.

³ Respectively, 754 million sq. ft. in domestic shipments and 1.681 billion sq. ft. in imports

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For example, the one year period proposed for implementing engineering controls is unreasonably short. A typical project to add equipment for air ventilation or dust control systems would require 3-4 months to perform workplace monitoring to define the worst case exposure scenario, 2-4 months to engineer/design the most appropriate control equipment, and 1-2 months to prepare the capital budget proposal and submit it for approval. Once the project is approved, the next step would be modification of the company's air permit. Addition of a dust collector or ventilation system(s) creates a new emission point that cannot be installed before obtaining a construction permit from the local/state air pollution control agency. This process typically takes 6-12 months and the company has little or no ability to control the amount of time this takes. Once the permit is approved, the equipment would then be ordered. Depending on the complexity of the system(s) needed to effect compliance, the time for equipment construction, delivery, on-site installation, start-up, testing, and full operation can take another 4-8 months. The above time frames are "real world" numbers and show that actual projects can take 16-32 months for completion. For this reason, we propose that the enforcement date be set at a minimum of one year from the effective date, except that at least two additional years be allowed if engineering controls are required to meet the new limit.

Additionally, TCNA members object to OSHA's arbitrary and capricious prohibition on the use of dry sweeping and dry brushing in the proposed 1910.1053(f)(3)(ii).⁴ Tile manufacturers process tons of dry materials containing crystalline silica on an hourly basis. Due to this high volume of material handling, it is impossible to remove dust from contaminated surfaces with the prescribed methods at the frequency required. Therefore, the proposed 1910.1053(f)(3)(ii) is requested to be revised to read as follows:

"To the extent practical compressed air, dry sweeping, and dry brushing shall not be used to clean clothing or surfaces contaminated with crystalline silica where such activities could contribute to employee exposure to respirable crystalline silica that exceeds the PEL."

Feasibility Determination

The above discussion is predicated on the assumption that it is "feasible" for the company to install engineering controls. Historically, TCNA members have evaluated their ability to install control equipment and/or modify work practices on a case-by-case basis considering the practical and economic limitations faced at each location. Comments made by OSHA raise

⁴ 78 Fed. Reg. 56,274, 56,451 (Sept. 12, 2013).

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serious concerns as to how future evaluations of feasibility must be made. In the preamble⁵, it is correctly stated that “*OSHA standards must be both technologically and economically feasible.*” This has been the criteria used by TCNA members in the past to determine what level of controls could be added.

TCNA members are concerned that OSHA is leaning toward a more stringent and unreasonable interpretation. This is based on OSHA’s reference to the Supreme Court decision that defines feasibility as “*capable of being done*” and other courts clarification that a standard is technologically feasible if OSHA proves a “*reasonable possibility*” (emphasis added) of its implementation. With regard to economic feasibility, OSHA pointed out that “*... courts have held that a standard is feasible if it does not threaten massive dislocation to or imperil the existence of the industry.*” Taken to the extreme, these comments mean that literally anything is technologically feasible unless the costs would threaten the existence of the entire industry. The decision as to when enough engineering controls have been added and when respirators can continue to be used to provide protection must be allowed to be made on a facility by facility basis.

As will be discussed herein under “Economic Impacts,” the rule as proposed presents the distinct possibility of massive dislocation within the domestic tile manufacturing industry. Further, due to the great disparity in the sizes of TCNA member companies, it is unreasonable for OSHA to take the position that any and every company can afford to add new controls. Many of our members’ customers (tile installers) and some of our members are small businesses with fewer than 20 employees, all of whom will be inordinately impacted by the proposed rule.

Action Level of 25µg/m³

OSHA has proposed setting an “action” level of 25µg/m³, which OSHA acknowledges in its preamble would be infeasible to achieve as a PEL. It is universally recognized that the current methods for sampling and analyzing respirable crystalline silica are not exact, but rather are subject to sufficient variation and error to cause false positives and negatives, i.e. 25µg/m³ is not an appropriate trigger threshold. Further, OSHA “*determined that a PEL of 25µg/m³ would not be feasible*”⁶ as engineering and work practices “*would not be sufficient*” to reduce and maintain silica exposures to a PEL of 25µg/m³ or below “*in most operations most of the time*” in the affected industries. Thus, OSHA explains that it “*did not attempt to identify engineering controls or their costs for affected industries to meet this [25µg/m³ standard as a] PEL.*”⁷

⁵ *Id.* at 56,292.

⁶ *Id.* at 56,426.

⁷ *Id.*

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OSHA's new proposal stands out in the fact that this is the only industrial standard in our knowledge to introduce an "action" PEL. In OSHA's explanations, by imposing these extra burdens it actually "*offers employers the incentive of discontinuing monitoring for employees whose sampling results indicate exposures are below the action level,*"⁸ or, stated differently, "*an incentive for employers to control their employees' exposures to respirable crystalline silica to below the action level to minimize their exposure monitoring obligations.*"⁹ However, OSHA, as noted earlier has already "*determined*" that achieving the 25µg/m³ in most of the operations is infeasible. This line of thought and concordant expectations will carry our members into an endless circle of monitoring, trying to meet a virtual standard of 25µg/m³ instead of an actual standard of 50µg/m³ or 100µg/m³. If OSHA's conclusions regarding infeasibility are accurate, the new "*incentives*" for regulated entities will generate unreasonable and infeasible expectations, potential litigation, and new costs without any proven benefits in safety performance.

Regulated Areas and Access Control

OSHA in the proposed 1910.1053(e)(2)(iv), *Provision of respirators*, and in 1910.1053(e)(3)(E) is requiring the employer to provide the employee's designated representative with an approved respirator and require its use in the regulated area and to include this requirement within the employer's written access plan¹⁰. However, OSHA does not address who is responsible for ensuring that the employee's representative has been medically cleared under the provisions of the proposed 1910.1053(h) and 29 CFR 1910.134, and appropriately trained and fit tested as required by OSHA.

We request that OSHA specially state within the proposed new rule that it is the responsibility of the employer of the employee's representative to provide the necessary respirator and a certification that the individual has been trained, medically cleared to wear the respirator, and has been fit tested in accordance with 29 CFR 1910.134.

Medical examinations should not be mandated for everyone working more than 30 days per year in a regulated area. The facility should have a Respiratory Protection Program that requires every person who uses a respirator at any time during the year to complete OSHA's Medical Questionnaire for submission to a health care professional (HCP). The standard should

⁸ *Id.* at 56,448.

⁹ *Id.*

¹⁰ *Id.* at 56,488.

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allow the HCP reviewing the Questionnaire to determine who needs to receive a medical examination, and what needs to be included in that medical examination.

Additionally, OSHA uses the adverb “*grossly*” in describing contamination of work clothing in the proposed 1910.1053(e)(2)(v) and (3)(F).¹¹ The term “*grossly*” is subjective and its use is undefined in this context, which would subject the employer to the whim of the compliance inspector. For example, some of our members utilize a process where the raw materials that contain crystalline silica are mixed with water prior to injection into a spray dryer. A worker could be “*grossly*” contaminated with this mud-like material and yet have zero risk of respiratory inhalation. Therefore, we are requesting that OSHA defines the term “*grossly*” or provides guidance within the proposed rule on how an employer is to determine if protective clothing is “*grossly*” contaminated. In all cases, it must be predicated on the potential for contributing to employee exposure to respirable crystalline silica that exceeds the PEL.

Proposed 29 CFR 1910.1053(d), *Exposure Assessment*

The proposed 1910.1053(d)(2), *Initial exposure assessment*, provides that employers may rely upon monitoring data that has been conducted within 12 months prior to the effective date of the final rule provided that the analytical method used is listed in (d)(5)(i). However, this same exception is not provided for initial exposure assessments conducted during the first two years after the final rule’s effective date.

This poses a significant compliance problem for affected industries. Under the proposed 1910.1053(d)(5), *Method of sample analysis*, OSHA mandates that “*samples taken to satisfy the monitoring requirements of paragraph (d)*”¹² not only are required to be evaluated by using one of the specified analytical methods in (d)(5)(i) but in (ii) mandates that the laboratory shall be accredited to ANSI/ISO/IEC Standard 17025:2005 and ISO/IEC Standard 17011:2004¹³ and also that the laboratories comply with additional requirements contained in (d)(5)(ii)(B) through (F)¹⁴. However, in the proposed 1910.1053((k)(ii) OSHA is delaying these provisions for laboratories until 2 years after the final rule’s effective date, so the laboratories may improve their procedures to become compliant. However, OSHA is requiring companies to become compliant to the new levels within 180 days of formalizing the rule even though mandated exposure analysis might be unavailable.

¹¹ *Id.* at 56,450.

¹² *Id.* at 56,446.

¹³ *Id.* at 56,449.

¹⁴ *Id.*

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Further, OSHA in the proposed (d)(5)(ii) is placing an onerous burden on the employer by mandating that the employer ensure that the selected laboratory meet all of the requirements in (d)(5)(ii)(A) through (F).¹⁵

TCNA members support the concept of mandatory periodic monitoring, but they believe annual monitoring is sufficient and appropriate to monitor and control workplace exposure levels. If exposures are measured to be above the PELs, semi-annual monitoring could be conducted. It is unreasonable to impose a requirement of quarterly sampling because of the length of time it takes to monitor, make changes, and monitor again to determine the effectiveness of the changes.

Recordkeeping

TCNA members on privacy grounds object to the mandatory use of the employee's social security number in the proposed 1910.1053(j)(1)(ii).¹⁶ To address this issue we recommend that OSHA allow the employer to use an alternative means of identification, such as the employee number, in lieu of the social security number.

Dates

OSHA is acting in an illogical manner by stating in the proposed 1910.1053(k)(2)(i) that compliance with the requirements of paragraph (f) be achieved within 180 days after the effective date and in (k)(2)(ii) requiring engineering controls be installed no later than one year after the effective date. As previously stated, we propose that the enforcement date be set at a minimum of one year from the effective date, except that at least two additional years be allowed if engineering controls are required to meet the new limit.

We also request that OSHA, after the consideration of all public comments, establish the effective date to be no earlier than 90 days after the publication of the final rule in the Federal Register.

Further, we request that OSHA clarify that the same length of time (days) is provided to achieve compliance for new sources and that the "clock" starts when the determination of exposure above the PEL is confirmed. While it is certain that all efforts will be made to construct a new facility to be in compliance at the time of start-up, if compliance is not achieved

¹⁵ *Id.*

¹⁶ *Id.* at 56,447.



for any reason, the same period of time is needed to monitor, design, permit, construct, and confirm compliance.

Toxicity of Forms of Silica in Raw Materials

Clay raw materials used in tile manufacturing are similar to those used in brick and sanitary ware manufacturing. Silica in clay is embedded in the matrices of aluminosilicates comprising the clay, which decreases the bio-availability of the silica molecule to attach to pulmonary tissue by modifying the surface of the silica. Because of this physical structure, existing studies indicate that the toxicity of the silica is significantly decreased. This means that the concentration of and exposure to silica required to cause a cytotoxic effect is increased. As the silica present in ceramic tile differs appreciably from the free crystalline silica OSHA intends to further regulate, tile manufacturing should not be included in the category of affected industries listed by OSHA in the proposed new rule.

To the extent separate provisions reflecting the reduced cytotoxicity of aluminosilicates are considered for other industries using clay raw materials, we request consideration of the same for the tile manufacturing industry.

Additionally in a survey of TCNA's largest tile and mortar-producing members, no silicosis cases were confirmed in the past 15 years (or longer) reaffirming the fact that stricter regulations are not required.

Economic Impacts

In the rule's preamble, OSHA asserts that "*most or all costs arising from this proposed silica rule would be passed on in higher prices rather than absorbed in lost profits and that any price increases would result in minimum loss of business to foreign competition.*"¹⁷ These assertions are wildly erroneous for ceramic tile and reflect a serious misunderstanding of the true nature of ceramic tile international trade.

Implementation of the proposed rule's requirements would increase both production and installation costs, and would put pressure on consumer prices. At a time when U.S. consumption of ceramic tile is more than 25% below its peak level (2006), this is a serious concern. The U.S. market is already flooded with lower quality, lower priced imports from many countries that likely do not have the same level of respect for the health, safety, and rights of their workers.

¹⁷ *Id.* at 56,338.

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The low cost of imported tile places an enormous burden on U.S. tile manufacturers to maintain current pricing to remain competitive.

According to the latest data collected by TCNA, the average price per square foot of U.S. tile shipments is \$1.43. The average price per square foot of Chinese imports is \$0.86. With Chinese imports 60% less expensive than U.S. tile in what is an extremely price-competitive market, OSHA's claim that "any price increases would result in minimum loss of business to foreign competition" strains credulity.

To illustrate the tremendous import/price sensitivity between domestic tile and imports, we note the increase in imports from Peru as a result of a bilateral free trade agreement between Peru and the United States eliminating duty on tile from Peru. Although only amounting to a price change of 4 – 5 cents per square foot, from 2008, the year before the bilateral agreement to the end of 2011, tile imports from Peru into the United States grew by 59%.¹⁸ This illustrates how even a small change in price due to modest increases in operating costs and raw material costs pose an existential threat to the tile manufacturing industry.

The import sensitivity of domestic tile manufacturing operations is well known by the United States International Trade Commission (USITC) and the office of the United States Trade Representative (USTR). The assertion made by OSHA that cost increases will not result in lost market share to foreign competition is in direct conflict with information known by USITC and the USTR and contrary to established public policy (as reflected in existing Free Trade Agreements) and industry testimony.

Contrary to the assertion made by OSHA, the marginal price increases anticipated by required conformance to the rule as proposed would make the domestic tile manufacturing industry highly uncompetitive threatening the very viability of this import-sensitive industry.

29 CFR 1926.1053, Respirable Crystalline Silica Standards for Construction

To the extent that the above comments are applicable to the proposed 29 CFR 1926.1053 for the construction industry, we request that they be incorporated into the public record for that standard.

¹⁸ Imports from Peru of tile were \$9.276 million in 2008, increasing to \$14.725 million in 2011 as reported by the Department of Commerce.

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Closing Comments

TCNA applauds efforts to improve safety, but cautions that safety is not improved by making America less competitive, nor when implementation is rushed and ill-conceived through timelines that are unreasonably short.

We strongly urge OSHA to consider better enforcement of current PELs. We support establishment of a limitation set at $100\mu\text{g}/\text{m}^3$ with a review at the end of 3 years that will determine if lowering the level again to $50\mu\text{g}/\text{m}^3$ is necessary to be protective of workers' health in the tile industry. We also believe that an action level of $25\mu\text{g}/\text{m}^3$ is unnecessary, unreliable, and infeasible. Further, it creates unreasonable expectations, a potential for litigation, and an excessive cost burden without sufficient data and studies that demonstrate exposure at this level poses a health risk.

In its current form, OSHA's proposal will have a debilitating effect on a majority of our members. We believe it will significantly increase costs, eliminate jobs, and undermine our industry's ability to compete in the global marketplace. For some of our members, this new rule might be the proverbial last straw that destroys their entire business. For these reasons we urge OSHA to reconsider its proposal as outlined in this letter.

Thank you for your consideration.



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