



February 15, 2023

To: Honorable Dave Thompson
Chair, Cal/OSHA Standards Board

Dear Mr. Thompson and Board Members:

We are writing to urge the Cal/OSHA Standards Board to consider adopting an Emergency Temporary Standard to control the hazards of airborne silica dust in shops that fabricate engineered stone, also known as artificial stone. We are concerned that the current General Industry standard for the control of silica hazards (8 CCR 5204) is insufficiently protective in such workplaces, and believe that the current standard should be strengthened in several important ways, as detailed below

By way of background, WOEMA is a professional non-profit association representing over 500 occupational medicine physicians and other experts in occupational and environmental health and safety, in five western states (Arizona, California, Hawaii, Nevada, and Utah). We have become concerned about the growing number of reported cases of advanced silicosis, often representing progressive massive fibrosis, in workers exposed to respirable crystalline silica that arises from cutting, shaping, and polishing engineered stone slabs.^{1,2} A recent series of about 50 cases of advanced silicosis cases discovered at Olive View Hospital in Southern California underscores the magnitude and severity of these risks in a workforce that is younger and often foreign-born.³

As you are aware, engineered stone slabs have emerged onto the home-building market only in the past 10 to 20 years, and have become increasingly popular because of their affordability, durability, and beauty. These engineered slabs appear to pose a significantly increased risk of silicosis, often in workers as young as 30 to 40 years of age with only a few years of occupational exposure, because they contain a much higher percentage of silica (up to 95%) compared with other types of stone such as granite, quartz, or marble, and because the binders in the engineered material might themselves be toxic.⁴

WOEMA is concerned that the current GISO standard for silica (8 CCR 5204) is insufficiently protective in the setting of engineered stone fabrication. Recent publications have highlighted the difficulty that regulatory agencies and public health officials have faced in preventing these

unsafe workplace exposures, despite the recent passage of the OSHA silica rules in 2016.⁵ Controlling silica dust levels in fabrication shops has proved to be technically difficult. Current requirements for the use of dust masks or other respirators are too often grossly deficient when fabrication shops and workstations overwhelmed by clouds of fine airborne dust. Despite the requirements of the silica standard aimed at detecting silicosis cases at an early stage, few workers are receiving mandated medical surveillance exams, and employers encounter only negligible punitive or other financial incentives to comply with the standard.⁶ We would also note that other countries, including Australia, have recently enacted more stringent regulations regarding the sale, fabrication, and installation of artificial stone slabs, with application to retail manufacturers, distributors, contractors, fabrication shops, and construction inspectors.⁷

WOEMA believes that this emerging epidemic of advanced silicosis cases is a public health problem of great urgency, because irreversible end-stage lung disease has now been shown to develop in fabrication workers after only a few years of poorly controlled occupational exposure. As the disease progresses, workers may become respiratory cripples, and often require expensive lifelong medical treatment, sometimes including lung transplantation where medical costs for a single case can run into the millions of dollars.

Accordingly, we believe that an Emergency Temporary Standard (ETS) for the control of airborne crystalline silica in these fabrication shops should aim to accomplish the following:

- 1) Scope - Workplaces using engineered stone with a high silica content (greater than 50% to 65%, in order to assure a margin of safety) should be subject to this more stringent standard.
- 2) Regulated Areas – Access by workers and others should be stringently controlled to areas where artificial stone is fabricated.
- 3) Dry fabrication prohibited – Employers should be prohibited from dry cutting, grinding, polishing, sweeping, or conducting other activities likely to disturb engineered stone materials without use of water to suppress dust.
- 4) Stronger respiratory protection – WOEMA would favor the adoption of a requirement for airline respirators or PAPR's, comparable to the respirator requirements in the GISO asbestos standard (8 CCR 5208(g)), for any tasks involving the fabrication of artificial stone.
- 5) “Written Plan” to include documentation of reporting to the Cal/OSHA Carcinogen Unit – The current silica standard (8 CCR 5204) requires employers to prepare a written plan, detailing how exposure to airborne crystalline silica will be controlled. We recommend adding a new required element of the plan, documenting annually that the employer has reported its use of silica to the Cal/OSHA Carcinogen Unit, pursuant to 8 CCR 5203.
- 6) Strengthen the penalty structure for violations – We recommend that the Division explore how to strengthen the penalty structure for violations of this new ETS, such that a failure by the employer to arrange adequate engineering controls, or to provide employees with suitable respirators (PAPR or airline respirator), or to arrange for mandated medical surveillance exams can be met by citations classified as Serious Violations.

- 7) Include up-to-date guidance for medical providers - WOEMA would favor having Cal/OSHA prepare an updated guidance document for physicians and other licensed health care providers (PLHCPs), who perform mandated surveillance exams under 8 CCR 5204. Specifically, this guidance would take account of recent research indicating that CT exams and other diagnostic studies should be ordered early in the course of silicosis, without the need for the “informed consent” provisions required elsewhere in the silica standard.
- 8) Require reporting of silicosis cases to the Division – If a physician or other licensed health care professional (PLHCP) conducting silica surveillance exam detects a case of silicosis of even moderately advanced severity, the PLHCP should be required to report that case to the Division. We recognize that enacting such a mandate will require that a “case definition” for reportability be set.⁸

WOEMA stands ready to assist the Division and the Standards Board to clarify and expand these recommendations, which we believe are urgently needed. It is of critical importance that we take all feasible measures to stop this new epidemic of occupational lung disease among California workers.

Please do not hesitate to contact me or our legislative staff expert, Mr. Don Schinske (415-497-5716), if you have questions or need more information.

Sincerely,

R. Terrazas, MD MPH
WOEMA President

References:

¹ Morris J and Berenstain-Rojas L (2022). Ancient Lung Disease Strikes Countertop Cutters in Southern California. Public Health Watch, December 2, 2022.

² Hoy RF, Glass DC, Dimitriadis C, et al. (2021). Occup Environ Med 78:296–302.

³ Los Angeles County Department of Public Health (2022). “Vigilant Olive View-UCLA Medical Center Physicians Identify Rare Occupational Lung Disease.” Pulse, December 2022. Available at <https://dhs.lacounty.gov/olive-view-ucla-silicosis/>

⁴ Leso V, Fontana L, Romano R, Gervetti P, Iavicoli I. (2019). Artificial Stone Associated Silicosis: A Systematic Review. Int J Environ Res Public Health. 16(4):568.

⁵ For the Cal/OSHA standard for exposure to silica in General Industry, see 8 CCR 5204.

⁶ Surasi K, Ballen B, Weinberg JL, et al. (2022). Elevated exposures to respirable crystalline silica among engineered stone fabrication workers in California, January 2019–February 2020. *Am J Ind Med* 65: 701- 707.

⁷ Worksafe Victoria (2022). Compliance Codes – Managing Exposure to Crystalline Silica – Engineered Stone. November, 2022. Available at: <https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-risks-respirable-crystalline-silica-engineered-stone-workplace>

⁸ We propose a case definition for silicosis reportability as follows: a B-reading score of 1/0 or worse, and/or forced vital capacity / FVC decreased by 30% or more in the setting of silica exposures of approximately 5 years or more, and/or a conclusion by the medical provider that the patient’s occupational silicosis has caused significant functional impairment.