

## Trainers' Awareness of the Silica Standard and Cab Filtration Requirements for Enclosed Cabs

### Operating Engineers and the OSHA Silica Standard: A Survey of Union Trainers

Grace Barlet, Rosemary K. Sokas, and Eileen Betit. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, 2019.

#### Overview

Operating engineers use heavy equipment for tasks such as excavation and demolition, which can generate respirable crystalline silica dust (RCS). Breathing in this dust can cause serious illnesses such as silicosis and lung cancer. Table 1 of OSHA's silica standard matches construction tasks with engineering controls, work practices, and, in select circumstances, respiratory protection to protect workers from exposure to hazardous levels of RCS. Employers who "fully and properly" implement a Table 1 equipment and control method for a particular task do not need to conduct employee air monitoring. One of the Table 1 entries is the use of heavy equipment with an enclosed cab and filtration system. In this study, researchers collaborated with the International Union of Operating Engineers (IUOE) to survey trainers on their familiarity with the silica standard, related training provided, and experience with and perceptions of cab filtration systems, as well as to identify related topics of concern.

#### Key Findings

- Just over half (54%) of the 100 IUOE trainers who responded to the survey reported being "extremely concerned" about exposure to silica dust, while 42% said they were "moderately concerned."
- Eighty-four percent conducted training on silica health risks and exposure prevention. Of these, 59% covered the use of cab filtration.
- Key barriers to the use of cab filtration systems included proper maintenance or pressurization (69%), expense (32%), cabs that were not air-conditioned (28%), and difficulty finding information about effectiveness (28%).
- Early findings from this study prompted discussions with government and industry representatives about ways to increase awareness and use of cab filtration systems that meet the Table 1 requirements of OSHA's silica standard. These discussions led to the development of new educational materials for manufacturers, purchasers, and users of heavy equipment.
- Additional research is needed to assess contractor use and understanding of the specific filtration requirements for heavy equipment in Table 1, and to explore the extent to which equipment that meets these requirements and addresses other health concerns, such as heat, noise, vibration, and musculoskeletal strains, is available and used on construction sites.

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#### See abstract:

<https://bit.ly/33KsVPy>

#### Resources to prevent silica exposure in enclosed cabs:

<https://bit.ly/3iZIsI9>

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