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# SILICA EXPOSURE CONTROL PLAN

## WE DON'T GET SILLY ABOUT SILICA SAFETY.

In an effort to limit employee-owner exposure to respirable silica, supervisors must plan tasks and training to meet OSHA standards §CFR1926.1153(k) Respirable Silica and §CFR 1910.1200 Hazard Communication Standard. Exposure tasks may include: using masonry saws, grinders, drills, jackhammers, handheld powered chipping tools, operating vehicle-mounted drilling rigs, milling, operating crushing machines, and using heavy equipment for demolition tasks.

**Table 1 of the OSHA Standard**, lists 18 silica-generating tasks along with specific engineering controls and respirator requirements. Provided Employee-owners follow the requirements outlined in Table 1 of the OSHA Standard, it may be assumed that their work falls below the permissible exposure limit.

Employee-owners who DO NOT follow the requirements outlined in Table 1, will be required to measure their exposure to silica and independently decide which dust controls work best to limit exposures to the permissible exposure limits in the workplace. It is the Company's responsibility to ensure exposure limits are not exceeded in the workplace.

Regardless of which exposure control method is used, all employee-owners covered by the standard are required to:

- Establish and implement a Silica Exposure Control Plan that identifies tasks that involve exposure and methods used to protect employee-owners, including procedures to restrict access to work areas where high exposures may occur.
- Designate a Competent Person to implement the Silica Exposure Control Plan and train employee-owners on work operations that result in silica exposure and ways to limit the exposure.
- Restrict housekeeping practices that expose employee-owners to silica where feasible alternatives are available.
- Offer medical exams, including chest X-rays and lung function tests, every three years for employee-owners who are required by the standard to wear a respirator for thirty (30) or more days per year and keep records of employee-owners silica exposure and medical exams.

This Silica Exposure Control Plan has been developed to reduce **Respirable Crystalline Silica (RCS)** exposures on jobsites that are created from tasks that include but are not limited to mixing of RCS-containing materials, concrete saw cutting, jack hammering, concrete coring, rock crushing, concrete drilling, and numerous other activities included on OSHA Table 1 in §29 CFR 1926.1153(c).

No employee-owner is allowed to be exposed to an airborne concentration of RCS in excess of 50 ug/m<sup>3</sup> calculated as an 8-hour Time Weighted Average (TWA). The action level of RCS is the concentration of airborne respirable (breathable) crystalline silica of 25 ug/m<sup>3</sup> (micrograms per cubic meter). Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. Cristobalite and tridymite are two other forms of crystalline silica. All three forms may become respirable size particles when employee-owners chip, cut, drill, or grind objects that contain crystalline silica.

### ROLES AND RESPONSIBILITIES

#### Project Supervision

- Project supervision will be responsible for implementing the Silica Exposure Control Plan.
- Perform audits of the jobsite to ensure compliance with the Silica Exposure Control Plan.

#### Competent Person(s)

- Make frequent and regular inspections of jobsites, materials, and equipment to implement this Silica Exposure Control Plan.

#### Employee-owners

- Utilize control methods and PPE as designed to protect from RCS exposure.
- Provide the Competent Person(s) and project supervision with feedback on RCS compliance.
- Report to the Competent Person(s) and project supervision any RCS exposure hazards discovered on the jobsite.

### PROCEDURES

#### General Requirements

- Employee-owners exposed to airborne RCS shall be protected by both engineering controls and/or proper personal protective equipment (PPE) at all times.
- Please refer to common control methods listed in OSHA Silica Standard Resource - Table 1, available in the resources within this section, for work tasks and control methods to be implemented.
- Jobsites shall designate a Competent Person.

#### RCS Control Methods

- The Competent Person for each jobsite shall evaluate the potential RCS exposure and implement proper control measures for tasks.
- Control Measures listed in Table 1 are a minimum requirement to be implemented.
  - + Tasks not listed in Table 1 need to be reviewed by the Safety Manager, or their designee. If control measures are not listed in Table 1, air sampling may need to be obtained.
- To limit exposure to RCS the following items must be implemented to reduce the exposure to airborne RCS:
  - + Wet methods, which involve applying water at a flow rate sufficient to minimize the release of visible dust. Examples include, but are not limited to the following:
    - » Attaching a water hose to a cut-off saw during concrete cutting operations
    - » A dust suppression system is used when a public water source is unavailable
    - » Water suppression during jackhammering/demolition operations
    - » Water use during road sweeping operations
  - + Working inside an enclosed cab
    - » Enclosed cabs should have properly functioning doors, gaskets/seals in good condition, and air filters (rated at MERV-16 or better).
    - » Cabs must also be as free as possible of settled dust.
    - » Tools with the dust collection system.
    - » Wearing of personal protective equipment.

#### Housekeeping Measures

- Do not dry sweep or dry brush where the activity could contribute to airborne exposure to RCS unless wet sweeping, HEPA filtered vacuuming, or other methods that minimize the likelihood of airborne exposure are not feasible.
- Cleaning with compressed air will not be permitted unless the compressed air is used in conjunction with a ventilation system that effectively captures airborne RCS or if no alternative method is feasible.

#### Restriction to Work Areas

- Access will be restricted to work areas where potential silica dust exposure is present by the use of barricading systems including signage or tags identifying the hazard within the barricaded area.

#### Medical Surveillance

- Medical surveillance will be made available at no cost for each employee-owner who will be required to use a respirator for thirty (30) or more days per year. Medical surveillance will be in compliance with §29 CFR 1926.1153(h).

#### Training

- Training on RCS will be provided to employee-owners involved in tasks that may produce RCS.
- Training will include the following:
  - + Health hazards associated with silica exposure
  - + Tasks in the workplace that could result in silica exposure
  - + Protective measures to protect employee-owners from silica exposure including engineering controls, work practices, and respiratory protection
  - + The identity of the Competent Person(s)
  - + The purpose and a description of the medical surveillance control method.