

Respirable Crystalline Silica Exposure Control Plan

PURPOSE

This Respirable Crystalline Silica Exposure Control Plan (ECP) was developed to prevent employee exposure to hazardous levels of respirable crystalline silica that could result through construction activities or nearby construction activities occurring on worksites. Respirable crystalline silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease. It is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing crystalline silica can lead to the release of respirable-sized particles of crystalline silica (i.e. respirable crystalline silica). Crystalline silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of crystalline silica. Many materials found on construction sites include crystalline silica; including, but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others. Consequently, this ECP has been developed to address and control these potential exposures to prevent our employees from experiencing the effects of occupational illnesses related to respirable crystalline silica exposure.

SCOPE

This Respirable Crystalline Silica Exposure Control Plan applies to all employees who have the potential to be exposed to respirable crystalline silica when covered by the OSHA Standard. The OSHA Respirable Crystalline Silica Standard applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below the Action Level (25 micrograms of respirable crystalline silica per cubic meter of air (25 $\mu\text{g}/\text{m}^3$) as an 8- hour time-weighted average (TWA)) under any foreseeable conditions.

RESPONSIBILITIES

Gerber Construction firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with upper management providing the necessary support to properly implement this ECP. However, all levels of the organization assume some level of responsibility for this Plan including the following positions:

Health & Safety Department:

- When applicable, conduct job site assessments for silica-containing materials and perform employee respirable crystalline silica hazard assessments in order to determine if an employee's exposure will be above the Action Level of 25 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA under any foreseeable conditions.
- Select and implement into the project's Site-Specific Health and Safety Plan (SSP) / Exposure Control Plan (ECP) the appropriate control measures and PPE in accordance with the Equipment/Tasks identified in Table 1 of 29 CFR 1926.1153; and potentially including (but not limited to) - exposure monitoring, Hazard Communication training, medical surveillance, housekeeping, respiratory protection, and others.
- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Respirable Crystalline Silica ECP are in place and readily available if needed.
- Ensure that Project Managers, Site Managers, Competent Persons, and employees are educated in the hazards of silica exposure and trained to work safely with silica-containing materials in accordance with OSHA's Respirable Crystalline Silica Standard and OSHA's Hazard Communication Standard. Managers and Competent Persons may receive more advanced training than other employees.
- Maintain written records of training (for example, proper use of respirators), inspections (for equipment, PPE, and work methods/practices), medical surveillance, respirator medical clearances, and respirator fit-test documentation.
- Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project SSPs/ECPs that extend beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.

- Coordinate work with other employers and contractors to ensure a safe work environment relative to silica exposure.

Project / Safety Management:

- Ensure all applicable elements of this Respirable Crystalline Silica ECP (and site-specific SSPs/ECPs when required) are implemented on the project including the selection of a Competent Person.
- Assist the Health & Safety Department in conducting job site assessments for silica-containing materials and perform employee respirable crystalline silica hazard assessments in order to determine if an SSP/ECP, exposure monitoring, and medical surveillance is necessary.
- Assist in the selection and implementation of the appropriate control measures in accordance with the Equipment/Tasks identified in 29 CFR 1926.1153, Table 1; and potentially including (but not limited to) - a written SSP/ECP, exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.
- Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program. This process will be documented.
- Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.
- Where there is risk of exposure to silica-containing dust/materials, verify employees are properly trained on the applicable contents of this ECP, the project-specific SSP/ECP, and the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

Competent Person and/or Site Manager (Superintendent, Foreman, etc.):

- Make frequent and regular inspections of job sites, materials, and equipment to implement the written SSP/ECP.
- Identify existing and foreseeable respirable crystalline silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.

- Notify the Project Manager and/or Health & Safety Department of any deficiencies identified during inspections in order to coordinate and facilitate prompt corrective action.
- Assist the Project Manager and Health & Safety Department in conducting job site assessments for silica-containing materials and perform employee respirable crystalline silica hazard assessments in order to determine if an SSP/ECP, exposure monitoring, and medical surveillance is necessary.

Employees:

- Follow recognized work procedures (such as listed Table 1 of the Standard) as established in the project's SSP/ECP and this Company ECP.
- Use the assigned PPE in an effective and safe manner.
- Participate in respirable crystalline silica exposure monitoring and the medical surveillance program when required.
- Report any unsafe conditions or acts to the site supervisor and/or Competent Person.
- Report any exposure incidents or any signs or symptoms of silica illness.

DEFINITIONS

If a definition is not listed in this section, please contact a supervisor. If the supervisor is unaware of what the term means, please contact the project Competent Person or the Health & Safety Department.

- Action Level means a concentration of airborne respirable crystalline silica of 25 $\mu\text{g}/\text{m}^3$, calculated as an 8-hour TWA.
- Competent Person means an individual who is capable of identifying existing and foreseeable respirable crystalline silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.
- Employee Exposure means the exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.



- High-Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter (regarding respirators, now commonly referred to as a 100-series particulate filter: N100, R100, or P100).
- Objective Data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.
- Permissible Exposure Limit (PEL) means the employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of 50 µg/m³, calculated as an 8-hour TWA.
- Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the medical surveillance section (1926.1153(h)) of the OSHA Respirable Crystalline Silica Standard.
- Respirable Crystalline Silica means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.
- Specialist means an American Board Certified Specialist in Pulmonary Disease or an American Board Certified Specialist in Occupational Medicine.

REQUIREMENTS

Specified Exposure Control Methods

When possible and applicable, Gerber Construction will conduct activities with potential silica exposure to be consistent with OSHA 29 CFR 1926.1153, Table 1. Supervisors will ensure each employee under their supervision and engaged in a task identified Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory



protection specified for the task (unless Gerber Construction has assessed and limited the exposure of the employee to respirable crystalline silica in accordance with the Alternative Exposure Control Methods described in the Standard).

Gerber construction will either use a HEPA filter vacuum with a shroud attachment for the tool, or a wet method to control silica exposure at the source whenever performing the following silica producing tasks.

The equipment/tasks being used/performed by Gerber Construction identified in Table 1; 29 CFR 1926.1153 are:

1. Handheld power saws (any blade diameter)
2. Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less)
3. Walk-behind saws
4. Handheld and stand-mounted drills (including impact and rotary hammer drills)
5. Jackhammers and handheld powered chipping tools
6. Handheld grinders for mortar removal (i.e. tuckpointing)
7. Handheld grinders for uses other than mortar removal
8. Walk-behind milling machines and floor grinders
9. Small drivable milling machines (less than half-lane)
10. Large drivable milling machines (half-lane and larger)
11. Crushing machines
12. Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g. hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials
13. Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials

For engineering and work practice control methods and required respiratory protection for each of the above listed equipment/tasks that the company will utilize, refer to Table 1, 29 CFR 1926.1153.

Housekeeping

Gerber Construction does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to respirable crystalline silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

Gerber does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to respirable crystalline silica unless: the



compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or, no alternative method is feasible.

Access Restriction Procedures

Where work involves potential exposure to respirable crystalline silica, Gerber Construction will implement procedures to restrict access to work areas to minimize the number of employees (including employees of other employers and sole proprietors) exposed to respirable crystalline silica and their level of exposure with the use of: signage warning of the hazard; safety briefings and tailgate trainings; and fencing, barriers, or warning lines delineating the restricted access zone.

Plan Review

Gerber Construction will review and evaluate the effectiveness of this Exposure Control Plan annually and update it when necessary.