Workplace Crystalline Silica Exposure Control Policy

Purpose

This Respirable Crystalline Silica Program was developed to prevent employee exposure to hazardous levels of Respirable Crystalline Silica that could result from construction activities or nearby operations on worksites. Respirable Crystalline Silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease.

This program is intended to meet the requirements of Federal OSHA 29 CFR 1926.1153 – Respirable Crystalline Silica in Construction.

Crystalline Silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form. Activities such as chipping, cutting, drilling, and grinding materials containing Crystalline Silica can release respirable-sized particles. Materials that may contain Crystalline Silica include, but are not limited to: cement, concrete, asphalt, and pre-formed structures (such as inlets, pipes, etc.).

This program was developed to recognize, control, and mitigate these exposures and prevent employees from experiencing the long-term effects of occupational illness due to Respirable Crystalline Silica.

Responsibility

E Light Electric Services, Inc. is committed to protecting the health and safety of all employees. Ensuring protection from silica-related hazards is a shared responsibility, involving management, supervisors, and employees at all levels.

Upper Management

- Ensure silica exposure assessments are completed where tasks may result in exposure at or above 25 µg/m³ as an 8-hour TWA.
- Select and implement appropriate control methods based on OSHA Table 1: Specified Exposure Control Methods (29 CFR 1926.1153, Appendix A).
- Provide resources including equipment, PPE, training, and support needed to implement this program.
- Ensure project teams and Competent Persons are trained on OSHA’s Respirable Crystalline Silica Standard and Hazard Communication Standard (29 CFR 1910.1200).

- Maintain written records of exposure assessments, training, medical surveillance, respirator fit testing, and inspections.
- Review the program annually or as needed based on operational changes or updated regulations.
- Coordinate with subcontractors and other employers to ensure shared compliance on multi-employer worksites.

Project Managers / Superintendents

- Implement this program on all applicable projects.
- Designate a Competent Person for silica-related tasks.
- Assist in exposure assessments and selecting controls as per OSHA Table 1.
- Ensure employees required to wear respirators are trained, medically cleared, and fit-tested under the company's **Respiratory Protection Program** (29 CFR 1910.134).
- Oversee safe work practices and verify that engineering controls, work methods, and PPE are used as required.
- Ensure training is completed and documented for all employees at risk of silica exposure.

Competent Person(s) / Supervisors

- Conduct frequent inspections of job sites, materials, and equipment to ensure compliance with the Exposure Control Plan (ECP).
- Identify and mitigate silica-related hazards in the workplace.
- Notify the Superintendent or Safety Department of any deficiencies or needed corrective actions.
- Participate in exposure assessments and control selection for silica-related work tasks.

Employees

- Follow all safe work procedures and control methods listed in the ECP and this program.
- Wear assigned PPE correctly and consistently.
- Participate in exposure monitoring and medical surveillance, if applicable.
- Report any unsafe conditions or signs/symptoms of silica-related illness.

Definitions

- Action Level – A concentration of airborne Respirable Crystalline Silica of 25 µg/m³, calculated as an 8-hour time-weighted average (TWA), which triggers certain required protective actions.
- Competent Person – An individual capable of identifying existing and foreseeable respirable crystalline silica hazards in the workplace who has authorization to take prompt corrective measures to eliminate or minimize them.
- Employee Exposure – The exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.
- High-Efficiency Particulate Air (HEPA) Filter – A filter that is at least 99.97% efficient in removing monodispersed particles of 0.3 micrometers in diameter.
- Objective Data – Information such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance that demonstrates employee exposure to respirable crystalline silica for a specific process, task, or material.
- Permissible Exposure Limit (PEL) – 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) – An individual legally permitted to independently provide or be delegated responsibility to provide required medical services under the Medical Surveillance provisions of the OSHA standard.
- Respirable Crystalline Silica – Quartz, Cristobalite, and/or Tridymite in airborne particles small enough to penetrate the gas-exchange region of the lungs, as defined in ISO 7708:1995.
- Specialist – A board-certified specialist in pulmonary disease or occupational medicine.

Specified Exposure Control Methods

Whenever possible and applicable, E Light Electric Services, Inc. will perform construction tasks in accordance with OSHA's Table 1: Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica (29 CFR 1926.1153, Appendix A).

Supervisors and Competent Persons are responsible for ensuring that the engineering controls, work practices, and required respiratory protection outlined in Table 1 are fully and properly implemented for each applicable task.

For convenience, OSHA’s Table 1 outlines:

- 18 common construction tasks
- Required engineering controls and work practices
- Respiratory protection requirements based on duration of task (< or > 4 hours per shift) and environment (indoors/outdoors)

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Engineering Controls for Tools Commonly used by E Light

Milwaukee 2880-20 	Grinding 49-40-6100 Use with 8960-20 dust extractor for full compliance 	Cutting 49-40-6110 Use with 8960-20 dust extractor for full compliance 
Hammer Drills/Drills 	5317-DE 	8960-20 Extractor 
Milwaukee Oscillating Multi-tool 2836-20 	49-40-2420 	8960-20 Extractor 

Bosch Jackhammer	Bosch HDC400	Bosch VAC090AH
		

When Implementing Table 1 Controls, E Light Shall:

- Ensure proper **exhaust ventilation** in enclosed areas to minimize visible dust accumulation.
- For **wet methods**, apply water at flow rates sufficient to suppress dust release.
- For equipment with **enclosed cabs**, ensure:
    - Positive pressure ventilation
    - Clean intake air filtered to at least **MERV-16**
    - Functional seals, gaskets, and doors
    - Clean interior conditions
    - Heating/cooling system in good working condition

If an employee performs multiple Table 1 tasks in a shift:

- Total time spent on all tasks must be calculated.
- If combined duration > 4 hours, use respiratory protection required for tasks > 4 hours.
- If ≤ 4 hours, use protection listed for shorter durations.

Alternative Exposure Control Methods

Alternative exposure control methods shall be used for tasks not included in OSHA Table 1, or when E Light Electric Services, Inc. cannot fully and properly implement the specified controls for a Table 1 task.

E Light will assess the exposure of each employee who is or may reasonably be expected to be exposed to respirable crystalline silica at or above the action level using one of two options:

1. **Performance Option**

   a. E Light will assess the 8-hour TWA exposure for each employee using any combination of:
      i. Air monitoring data
      ii. Objective data sufficient to accurately characterize employee exposure

2. **Scheduled Monitoring Option**
   a. Initial monitoring will be conducted using personal breathing zone samples representing each shift, job classification, and work area.
   b. Representative sampling may be used when employees perform similar tasks in similar conditions. The employee(s) expected to have the highest exposure will be sampled.

Follow-up Monitoring Schedule

- Below Action Level: Monitoring may be discontinued
- ≥ Action Level but ≤ PEL: Repeat monitoring within 6 months
- Above PEL: Repeat monitoring within 3 months
- Two consecutive results < Action Level (7+ days apart): Monitoring may be discontinued unless changes occur

Reassessment

Reassess exposure whenever:

- Changes in processes, control equipment, work practices, personnel, or materials may increase exposure
- There is reason to believe new exposures ≥ Action Level have occurred

Employee Notification

- Employees will be notified in writing of exposure results within 5 working days
- If exposure exceeds the PEL, the notification will include corrective actions being taken to reduce exposure

Employee Observation Rights

Employees or their designated representatives may observe exposure monitoring. If observation requires entry into a regulated area, appropriate PPE and training will be provided at no cost.

Compliance Method

E Light will use engineering controls and work practices to reduce exposures to or below the PEL. Where not feasible, these methods will be used to reduce exposure as much as possible and supplemented with respiratory protection.

Control Methods

E Light Electric Services, Inc. will implement control methods that:

- Conform with OSHA's Table 1, or
- Have been demonstrated through sampling to effectively reduce exposure to or below the PEL

Respiratory Protection

When respiratory protection is required:

- E Light will provide appropriate NIOSH-approved respirators at **no cost** to employees
- All use must comply with **OSHA 29 CFR 1910.134 – Respiratory Protection Standard**

Respirators will be required:

- Where Table 1 tasks require them
- When engineering and work practice controls are not sufficient
- During periods when controls are being installed or maintained
- For tasks not listed in Table 1 with exposures above the PEL

Employees must be:

- Medically evaluated
- Fit-tested
- Trained on proper use and limitations of respirators

Documentation of clearance, fit testing, and training will be maintained.

Housekeeping

To minimize silica exposure, **E Light Electric Services, Inc.** prohibits:

- **Dry sweeping or dry brushing**, unless wet sweeping or HEPA-filtered vacuuming is not feasible
- **Use of compressed air** for cleaning clothing or surfaces unless:
    - Used with a ventilation system that captures the dust, or
    - No alternative method is feasible

Written Exposure Control Plan (ECP)

When employee exposure is expected to meet or exceed the **Action Level**, E Light will develop and implement a **Written Exposure Control Plan (ECP)**.

The ECP will include:

- Description of tasks involving respirable crystalline silica exposure
- Engineering controls, work practices, and PPE used
- Housekeeping measures used to limit exposure
- Procedures for restricting access to areas with potential exposure
- Identification of the **Competent Person** responsible for implementing the ECP

The ECP will be:

- **Project-specific**
- **Reviewed at least annually** and updated as necessary
- **Made available** to employees, their representatives, and OSHA upon request

Medical Surveillance

E Light will provide **medical surveillance** for employees required to wear a respirator for **30 or more days per year** due to respirable crystalline silica exposure.

Medical exams will be provided:

- At **no cost** to employees
- At a **reasonable time and place**
- By a **PLHCP** (Physician or other Licensed Health Care Professional)

Initial Exam (within 30 days of assignment):

Includes:

- Medical and work history
- Physical exam with respiratory focus
- Chest X-ray (ILO classified by NIOSH-certified B Reader)
- Pulmonary function testing (NIOSH-certified technician)
- Tuberculosis testing
- Any other tests deemed appropriate by the PLHCP

Ongoing Exams:

- At least every **3 years**, unless more frequent exams are recommended
- Same tests as initial exam (except tuberculosis unless otherwise indicated)

Information Provided to PLHCP:

- Description of duties and anticipated exposure levels
- PPE used and duration of use
- Prior medical records under E Light's control

Employee Notification:

Employees will receive a **written medical report** within **30 days** of the exam including:

- Medical conditions related to silica exposure
- Recommended restrictions or further evaluations
- Referral to a **Specialist** if required

E Light will receive a **written medical opinion** that includes only:

- Exam date
- Statement that the exam meets OSHA standard requirements
- Any limitations on respirator use

Additional information will be provided only with the employee's written consent.

If referred, a follow-up exam with a Specialist will be provided within **30 days**, and results managed per the standard.

Hazard Communication

E Light Electric Services, Inc. will include Respirable Crystalline Silica in its company-wide **Hazard Communication Program** in compliance with **OSHA 29 CFR 1910.1200**.

E Light will ensure:

- All containers of crystalline silica-containing materials are properly labeled
- Safety Data Sheets (SDSs) are available to all affected employees
- Employees receive silica-specific hazard communication training before potential exposure

Training Will Cover:

- The health effects of Respirable Crystalline Silica exposure (e.g., lung cancer, silicosis, kidney effects)
- Tasks that may result in silica exposure
- Measures used to control exposure (engineering, work practices, and PPE)

- Details of the **OSHA Respirable Crystalline Silica Standard (29 CFR 1926.1153)**
- The identity and role of the **Competent Person**
- An overview of the **Medical Surveillance Program**

Employees must be able to demonstrate knowledge and understanding of these topics before engaging in silica-related tasks.

A copy of the OSHA Respirable Crystalline Silica Construction Standard will be made available to all employees upon request, at no cost.

Recordkeeping

E Light Electric Services, Inc. will maintain accurate records in accordance with **OSHA 29 CFR 1910.1020 – Access to Employee Exposure and Medical Records**.

Exposure Records

Records of air monitoring will include:

- Date of monitoring
- Task monitored
- Sampling and analysis methods used
- Number, duration, and results of samples
- Lab identity
- PPE used
- Names, job titles, and identifiers of monitored employees and those represented

Retention: At least **30 years**

Objective Data Records

For any data used to determine exposures without monitoring, the following will be recorded:

- Description of the material and silica content
- Source of objective data
- Testing protocol and results
- Description of processes or conditions
- Any relevant supporting information

Retention: At least **30 years**

Medical Surveillance Records

For each employee in the program:

- Name and SSN
- PLHCP's and Specialist's written medical opinions
- Information provided to healthcare professionals

Retention: Duration of employment + **30 years**, unless employment is under 1 year and the records are transferred to the employee.

All medical records will be kept **confidential** and stored **securely**.

Program Evaluation

The Respirable Crystalline Silica Program will be reviewed **annually** by E Light's Safety Department, or sooner if:

- Work operations change
- New OSHA regulations or interpretations are issued
- A deficiency in program effectiveness is identified

Updates will be made promptly to ensure the program remains compliant and effective in protecting employee health.