

Jay Industries, Inc.

Silica Exposure Control Plan

Adopted January 9, 2018

Purpose and Scope:

The purpose of this plan is to identify tasks involving silica exposure and the methods used to protect employees. The Silica Exposure Control Plan applies to any employee who may be exposed to respirable crystalline silica.

The following OSHA standards are applicable for respirable crystalline silica:

- General Standard 29 CFR 1910.1053
- Construction Standard 29 CFR 1926.1153

Responsibilities:

Supervisors are required to insure that employees engaging in work processes using silica are following proper procedures to minimize their exposure.

Supervisors are required to identify new or existing tasks that may result in employee exposure to respirable crystalline silica.

EHS is responsible for testing new or existing tasks that may result in respirable crystalline silica exposure, maintaining testing results, identifying engineering controls, identifying personal protective equipment, and providing technical assistance.

Employees are responsible for following the safety recommendations and using the PPE for protection from silica. Employees should contact their supervisor with safety concerns.

Health Hazards from Silica Exposure

Silica is quartz, and the less common cristobalite and tridymite. Silica is present in many common construction and manufacturing materials, including concrete, mortar, block, brick, stone, asphalt, sand, and paint. Airborne dust is created when these materials are disturbed, such as by cutting, drilling, demolishing or grinding. A portion of this dust is respirable, meaning that very fine particles can reach the lungs. Some of the respirable dust contains Silica. The Silica varies by materials used and geography of where they came from.

Prolonged overexposure to Silica can result in health-related injury, including silicosis, cancer, tuberculosis, chronic bronchitis, immune system impairment, and kidney disease. The OSHA rule was established to protect employees from the effects of Silica. The OSHA Action Level and Permissible Exposure Limits can be found in the standards listed above.

Training:

Employees who may be exposed to Silica shall receive training in which they demonstrate knowledge and understanding of the health hazards associated with Silica exposure, specific workplace tasks where Silica exposure may occur, and measures implemented to protect them from Silica exposure.

Risk Assessment

Silica generating tasks shall be identified and assessed for exposure reaching Action Levels. Any new task or procedure generating Silica shall be reported to the EHS department for assessment.

Identified Tasks with Silica Exposure and Exposure Control Methods, including PPE

Employees engaging in tasks with materials containing crystalline silica shall fully and properly implement the engineering controls, work practices and respiratory protection specified.

A. Burn-off Oven

Engineering Control: Air handling Cyclone system

Respiratory Protection: N95 Dust Mask, optional

B. Powder Coating, using any powder containing elements of texture

Engineering Control: Down Draft Reclaim System

Respiratory Protection: Full or Half Mask in Booth or N95 Dust Mask for clean-up

C. Grinding

Engineering Control: Room ventilation system must be in use

Respiratory Protection: Torrit Exhaust System and N95 Dust Mask, optional

D. Sandblasting

Engineering Control: Enclosure must be used

Respiratory Protection: N95 Dust Mask, optional

E. Cutting Concrete Slabs, Asphalt, Block, Brick, Stone or Tile

Engineering Control: Use a saw with water fed continuously to the blade

Respiratory Protection: N95 Dust Mask

F. Core Drilling Concrete or Asphalt

Engineering Control: Wet coring techniques

Respiratory Protection: N95 Dust Mask

G. Heavy Equipment for grading or excavating

Engineering Control: Apply water or dust suppressant as necessary to minimize dust emissions.

Respiratory Protection: Operate within an enclosed cab and/or N95 Dust Mask

H. Housekeeping

Engineering Control:

Minimize accumulation of residual dust during clean-up of areas with silica dust using a HEPA filtered vacuum or wet sweeping of the work area. Do not dry sweep. Do not use compressed air to clean clothing or other surfaces. Insure that ventilation systems are on before cleaning. Wash hands before eating and drinking.

Respiratory Protection: N95 Dust Mask

Third Party Generated Silica Exposure

Contractors working on the property of Jay Industries, Inc., shall be required to verify that any Silica generating tasks which they perform are in compliance with applicable rules and OSHA laws, and shall use engineering controls, work practices, and PPE as needed.

Bystander Exposure:

When a bystander employee is not engaged in a Silica generating task but will be working in the vicinity of that task, or in a location where there is visible dust from that task, the supervisor shall follow the below requirements. Very short-term exposure, such as walking through the area, retrieving items, etc., is exempt from this requirement.

- A. Provide the bystander with a respirator or other applicable PPE
- B. Remove the bystander from the area while the Silica generating task is being performed.

Action	Date	By Whom
Plan implemented	January 9, 2018	Marijan Grogoza