



**COMPANY  
HEALTH & SAFETY  
PROGRAM**

Issue: A  
Date: 3/20/2017  
Rev: 1  
Date: 3/20/2017  
Authorized: *MJM*

**Title: Silica Exposure Control Plan**

Section No: 47  
Attachment A

Page 1 of 6

## **Job Name**

**Located at**

## **Address**

## **Overview**

For the silica dust producing task(s) described below **Power Process Piping** will always defer to, and comply with “Table 1” of OSHA’s *Respirable Crystalline Silica Standard*.

Purpose

The purpose of this written silica exposure control plan is to protect **Power Process Piping** workers from overexposure to respirable crystalline silica. Overexposure can lead to series health problems such as silicosis, lung cancer, chronic bronchitis, kidney disease, and autoimmune diseases. Therefore, **Power Process Piping** will ensure that:

- No worker is exposed to respirable crystalline silica above the Permissible Exposure Limit (PEL) of 50 ug/m<sup>3</sup>;
- An exposure assessment is performed for each worker who could be exposed to respirable crystalline silica at or above the Action Level (AL) 25 ug/m<sup>3</sup>.
- Worker exposure will be reassessed whenever a change in production, process, control equipment, personnel, work practices, or any other reason that becomes apparent could change exposures to measure at or above the AL.
- Whenever they are feasible engineering and work practice controls will be established and implemented to reduce and maintain exposures at or below the PEL.



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Attachment A

Page 2 of 6

### Responsibilities

Michael McCaffrey is Power Process Piping's designated competent person for silica related activities that affect Power Process Piping workers on this project. Michael McCaffrey is responsible for implementation of this exposure control plan, and will perform frequent and regular inspections of applicable areas of the jobsite, materials, and equipment to ensure that it is being properly implemented. His responsibilities include, but are not necessarily limited to ensuring that:

- An acceptable exposure assessment has been completed and documented for each applicable silica related task affecting Power Process Piping workers;
- The results of the exposure assessments are made available to affected workers and their designated representatives;
- Affected workers have received appropriate safety and health training on respirable crystalline silica generating tasks, accompanying hazards, and effective protective measures;
- Appropriate engineering controls are established whenever they are feasible;
- Appropriate safe work practices are established and implemented as needed;
- Respiratory protection is used when needed, and respirator use is in compliance with applicable respiratory protection standards;
- Housekeeping practices limit exposure to respirable crystalline silica as much as possible; and
- The effectiveness of this exposure control plan is evaluated at least annually where applicable, and updated as necessary to keep affected workers from overexposure to respirable crystalline silica.

### Silica Dust Producing Tasks

On this project Power Process Piping will perform, or may perform work in close proximity to the following silica dust producing task(s).

(Delete all that do not apply and add any that apply, but which are not already listed. Also, add detail such as where on the project the task(s) will be performed, how many of your workers will be directly affected, how many holes or what size cuts you'll be making, etc. 1<sup>st</sup>. example... "Use of handheld impact drill by one worker in the corridor leading to the mechanical room. The worker will drill thirty 3/8" pipe hanger holes 2 3/4" deep into the poured concrete ceiling. 2<sup>nd</sup> example... "Working in close proximity to masons operating a stationary masonry saw intermittently throughout the day. The masons are using the room to cut brick and block as needed.")



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Page 3 of 6

- Handheld drill work on concrete **(add details)**
- Handheld impact drill work on concrete **(add details)**
- Handheld rotary hammer drill work on concrete **(add details)**
- Stand mounted drill work on concrete **(add details)**
- Stand mounted impact drill work on concrete **(add details)**
- Stand mounted rotary hammer drill work on concrete **(add details)**
- Rig mounted core drill/saw work on concrete **(add details)**
- Handheld power saw work on concrete **(add details)**
- Walk-behind saw work on concrete **(add details)**
- Jackhammer work on concrete **(add details)**
- Handheld powered chipping tool work on concrete **(add details)**
- Working in close proximity to stationary masonry saw work on concrete **(add details)**
- Working in close proximity to handheld power saw work on fiber cement board with a blade diameter of 8" or less **(add details)**
- Working in close proximity to drivable saw work on concrete **(add details)**
- Working in close proximity to dowel drilling rig work on concrete **(add details)**
- Working in close proximity to vehicle mounted drilling rig work for rock and concrete **(add details)**
- Working in close proximity to handheld grinders for mortar removal work **(add details)**
- Working in close proximity to handheld grinders for concrete work **(add details)**
- Working in close proximity to walk-behind milling machine work on concrete **(add details)**
- Working in close proximity to walk-behind floor grinder work on concrete **(add details)**
- Working in close proximity to small drivable milling machine work on concrete **(add details)**
- Working in close proximity to large drivable milling machine work on concrete **(add details)**
- Working in close proximity to crushing machine work on stone **(add details)**
- Working in close proximity to heavy equipment/utility vehicle work on silica containing materials **(add details)**
- Working in close proximity to heavy equipment/utility vehicle work on excavating **(add details)**



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Section No: 47  
Attachment A

Page 4 of 6

## Engineering Controls

When acceptable, engineering controls are feasible **Power Process Piping** will always defer to, and comply with “Table 1” of OSHA’s *Respirable Crystalline Silica Standard*.

## Safe Work Practices

All affected **Power Process Piping** workers and supervisors will follow designated safe work practices for tasks and exposures within our scope of work to help prevent overexposure to respirable crystalline silica on this project. The safe work practices include, but are not necessarily limited to the following:

- Only sharp masonry drill bits and saw blades will be used when drilling or cutting into concrete.
- Affected workers are not permitted to eat, drink, smoke, or apply cosmetics in affected work areas.
- Affected workers are required to wash their hands and faces before eating, drinking, smoking, or applying cosmetics.

Affected workers are not permitted to dry sweep, dry brush, or used compressed air to clean their clothes or surfaces in affected work areas. Cleanup will be performed only with HEPA filtered vacuums.

## Respiratory Protection

Affected workers are required to use respiratory protection unless overexposure to respirable crystalline silica will not occur without respiratory protection. **Michael McCaffrey** will ensure that each affected worker has, prior to respirator use:

- Received appropriate training on respiratory protection, including the contents of OSHA’s *Respiratory Protection Standard*, and proper respirator selection, use, maintenance, storage;
- Completed a medical evaluation and been approved to work while wearing a respirator; and
- Completed fit testing procedures that have established an appropriate size, brand, and style of respirator for adequate protection from overexposure to respirable crystalline silica on this project.



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Section No: 47  
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Page 5 of 6

## Housekeeping Measures to Limit Worker Exposure

- Dry sweeping, and dry brushing are not permitted by **Power Process Piping** workers on this project.
- Use of compressed air to clean clothing or surfaces in affected work areas are not permitted by **Power Process Piping** workers on this project.
- A HEPA vacuum will be used for all silica containing dust cleanup.

## Affected Area Access Restrictions

**Power Process Piping** restricts access by all others to areas where **Power Process Piping** workers are performing (insert task(s) you selected from Silica Dust Producing Tasks above), and restricts access to its own affected workers who must perform work in areas where other trades are pulverizing silica containing building materials.

- Prior to starting work on any project where respirable crystalline silica exposure is a concern **Michael McCaffrey** will meet with all other affected employers to determine whether **Power Process Piping** workers could be exposed to respirable crystalline silica from the work of other trades on the project. Where potential exposures are identified **Michael McCaffrey** will document the operations, their locations on the project, and when they will be performed.

Prior to starting work on any project where respirable crystalline silica exposure is a concern **Michael McCaffrey** will meet with all **Power Process Piping** workers to inform them about the silica exposures on the project and the necessary affected area restrictions.

When **Power Process Piping** workers are performing tasks that Generate Respirable Crystalline Silica:

- The affected work area will be barricaded with stanchions, and yellow and black caution tape.
- The barricaded area will be large enough to prevent other trades in the area from overexposure to respirable crystalline silica, provided that they do not breach the barricade.
- Signs stating, “Caution – Silica” will be posted around the perimeter of the barricaded areas so that other trades will know why they should not to breach the barricade.
- **Michael McCaffrey** will inform all other affected employers on the project about the silica generating tasks that will be performed by **Power Process Piping**, their locations on the project, and when they will be performed.



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Page 6 of 6

When **Power Process Piping** workers must work in close proximity to other trades that are pulverizing silica containing building materials:

- Affected **Power Process Piping** workers will not enter the work area, but will report the issue to **Michael McCaffrey**.
- **Michael McCaffrey** will reschedule the mechanical construction work in the affected area to another time when exposure to respirable crystalline silica is not a concern.
- When work in the affected area can't be rescheduled, access to affected **Power Process Piping** workers will not be restricted, but **Michael McCaffrey** will ensure that they are implementing the necessary safe work practices and protective measures to prevent overexposure to respirable crystalline silica in those work areas.

## **Review/Evaluation of This Silica Exposure Control Plan**

**Michael McCaffrey** will evaluate the effectiveness of this written silica exposure control plan at least annually, and update it as necessary to keep affected workers from overexposure to respirable crystalline silica on this project.