	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>1 of 6</b>
	Subject:	Revision:	<b>09/21/2017</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

## 1.0 Policy

This program is intended to apply to all employees of Sunbelt Controls performing work that produces silica hazards.

Exposure can occur during common construction tasks such as, drills, jackhammers and handheld powered chipping tools (e.g., roto-hammers).

## 2.0 Purpose

The purpose of this written respirable crystalline silica exposure control plan is to prescribe the controls and procedures needed to protect Sunbelt Controls workers from overexposure to respirable crystalline silica. The use of control measures will be required to achieve this objective.

## 3.0 Health Hazards

Exposure to silica has been shown to cause silicosis.


## 4.0 General

Sunbelt Controls will employ the OSHA standard permissible exposure limit (PEL) of 0.05 mg/m<sup>3</sup> over an 8 hour work day.

A worker's exposure to silica is kept as low as reasonably achievable. Employees must not be exposed or expected to be exposed to airborne concentrations of silica more than 0.05 mg/m<sup>3</sup> over an 8-hour period. Atmospheric testing can be performed to ensure a worker is not exposed.

### 4.1 Overexposure Safety

A key step in developing a silica exposure control plan is to identify the work activities that would put workers at risk of exposure. **In cases of exposure levels above the permissible exposure limit (PEL) of 0.05 mg/m<sup>3</sup>**, a written plan to reduce that exposure will be prepared. This plan will be explained in the monitoring results letter sent to the exposed employee. The job Foreman and trade Superintendent will receive a copy of this notice and will be responsible for the prompt implementation of this plan. By following the control methods outlined in Table One (Figure 1) of this document, exposure levels should be decreased below the above stated PEL.

	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>2 of 6</b>
	Subject:	Revision:	<b>09/21/2017</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

## 4.2 Duties and Responsibilities

Due to the risk posed by respirable silica, all Sunbelt Controls personnel performing tasks that could potentially create silica dust shall take specific action to reduce over-exposure risks.

### Superintendents and General Foreman:

- Ensuring that the materials (e.g., tools, equipment, and personal protective equipment) and other resources (i.e., employee training materials) required to fully implement and maintain this exposure control program are readily available where and when they are required.

### Safety and General Foreman

- Developing job / site specific exposure control plan for each project as need warrants; which outlines the work methods and practices that will be utilized. This can be included in the Site Specific Safety Plan (SSSP) or Job Hazard Analysis (JHA).
- Communicate additional silica hazards to the Prime Contractor, Sunbelt Controls Safety representative and the project manager.


### Foremen:

- Obtain a copy of the SSSP or JHA and review hazards and control methods with crew performing work.
- Providing adequate instruction to workers on the hazards of working with silica-containing materials (e.g., concrete) and on the precautions specified in the job-specific plan covering hazards at the location
- Directing the work in a manner that ensures the risk to workers are minimized and adequately controlled
- Pausing work and communicating with the General Foreman, when / if additional silica hazards are discovered (e.g., concrete sawing and uncontrolled dust within close proximity to Sunbelt Controls Team Members).

\*Workers shall stay out of the affected area until hazards have been mitigated.

### Employees:

- Knows the hazards of silica dust exposure
- Using the assigned protective equipment in an effective and safe manner
- Setting up the operation in accordance with the site-specific plan
- Following established work procedures as directed by the Foreman
- Pausing work and reporting any unsafe conditions or acts to the Foreman

	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>3 of 6</b>
	Subject:	Revision:	<b>09/21/2017</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

#### 4.3 Controls and Procedures

Effective control options must be used to eliminate or reduce the risk to workers from the hazards of silica dust exposure. The following hierarchy of control measures must be followed.

##### Engineering / Physical Controls

Where feasible, silica dust exposure must be controlled through engineering controls and work practices in preference to respiratory protection.

The Company has purchased and supplies to employees, at no cost to the employee, commercially available dust collection attachment devices for all drilling tools and equipment. Employees participating in a drilling operation shall use the dust collection device as intended and per manufacturer's instructions.


Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor	
		<4 hours/shift	>4 hours/shift
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	<p>Use drill equipped with a commercially available shroud or cowl with dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions</p> <p>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</p> <p>Use a HEPA-filtered vacuum when cleaning holes.</p>	None	None

(Figure 1)

##### Dust Collection Device Usage

**Set Up:** Prior to the use of the dust collection device, or any tool, the employee shall perform a visual inspection of the equipment to ensure it is safe for use. If not attached to the drill the dust collection device shall be properly attached to the tool per the manufacturer's instruction. The vacuum should be in operation before and after drilling.

**Adjustment:** The drill bit and vacuum armature shall be adjusted so that the tip of drill bit is within the tip of the vacuum armature. Drill bits that protrude the armature can cause dust to be expelled into the air. Brushes on the

	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>4 of 6</b>
	Subject:	Revision:	<b>09/21/2017</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

armature tip should be replaced if damage or excessive dust during operation is detected.

***Cleaning:*** The dust collection device is equipped with a HEPA filter and collection tray. In the collection tray there is a dust collection bag. The filter should be disposed of in accordance with the manufacturer's recommendation.

Note: Disposable filters are not considered hazardous waste. If the collection tray becomes full of dust and restricts use, the tray shall be cleaned in the following manner on the worksite:


1. Disconnect power source from the device then remove the collection tray.
2. If needed discard the filter. If the filter is still usable place it to the side.
3. Place the collection tray in a sealable plastic bag and shake the loose dust from the tray. The dust collecting bag in the collection tray should contain most of the dust.
4. Allow the dust to settle before opening the bag to remove the tray and the enclosed bag. Any residual dust can be cleaned from the tray with only a damp cloth. Allow the tray to dry before reinstalling.
5. Reinsert the filter and a new dust collection bag into the tray and replace it onto the device.

A thorough cleaning of the collection tray shall be performed when the device is returned to the shop. A thorough cleaning consist of clearing dust with a HEPA vacuum and washing with water or damp cloth.

#### **4.4 Housekeeping**

In order to further reduce the exposure of crystalline silica dust in the worksite, Sunbelt Controls employees shall use the following housekeeping practices:

- Dry sweeping of concrete dust is not permitted by Sunbelt controls employees.
- Use of compressed air to clean clothing or surfaces in affected work areas are not permitted by Sunbelt Controls employees.
- A HEPA vacuum or wet method will be used for all concrete dust cleanup.

	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>5 of 6</b>
	Subject:	Revision:	<b>09/21/2017</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

#### **4.5 Industrial Hygiene Recordkeeping (When Monitoring Required by Site)**

The following records are required to be maintained through the Safety Department and made available in accordance with 29 CFR 1910.1020:

1. Air monitoring data:

- The date of measurement for each sample taken;
- The task monitored;
- Sampling and analytical methods used;
- Number, duration, and results of samples taken;
- Identity of the laboratory that performed the analysis;
- Type of personal protective equipment, such as respirators, worn by the employees monitored; and
- Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored


2. Objective data used for exposure assessment:

- The crystalline silica-containing material in question;
- The source of the objective data;
- The testing protocol and results of testing;
- A description of the process, task, or activity on which the objective data were based; and
- Other data relevant to the process, task, activity, material, or exposures on which the objective data were based.

3. Medical surveillance for each employee to include:

- Name and social security number;
- A copy of the PLHCPs' and specialists' written medical opinions; and
- A copy of the information provided to the PLHCPs and specialists.

Employee training records and documentation of periodic jobsite review should also be maintained as a best practice and documentation of program implementation.

	Manual:	Policy Section #:	<b>22 Appendix G</b>
	<b>Safety Policy &amp; Procedures</b>	Page:	<b>6 of 6</b>
	Subject:	Revision:	<b>02/22/2018</b>
	<b>Respirable Crystalline Silica</b>	Issue Date:	<b>09/22/2017</b>

## 5.0 References

- 5.1** 29 CFR 1910.1153; 29 CFR 1910.1153 Table 1
- 5.2** 29 CFR 1910.1020