Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

1.0 Purpose

The Crystalline Silica Exposure Control Plan is designed to protect employees from respirable crystalline silica through identification, evaluation, and control of respirable silica hazards in the workplace. It establishes procedures regarding these hazards to deploy and communicate to all affected employees.

2.0 Responsibility

2.1 EHS Manager – Ensures that content and intent of this document are managed effectively, and this document is reviewed and evaluated for effectiveness at lease annually and updated as necessary.

2.2 Company Management - The written exposure control plan is readily available for examination and copying, upon request, to each employee covered by this rule, their designated representatives, the Assistance Secretary of OSHA and the Director of OSHA. Also see the Task Exposure Control Evaluation Form. [1910.1053(f)(2)(iii)]

3.0 Definitions

3.1 Action Level – a concentration of airborne respirable crystalline silica of 25 ug/m$^3$, calculated as an 8-hour TWA.

3.2 Exposure Assessment – The employer shall assess the exposure of each employee who is or may reasonably be expected to exposed to respirable crystalline silica at or above the action level in accordance with either the performance option or scheduled monitoring option of the standard.

3.3 Performance Option – Any combination of air monitoring data or objective data to accurately characterize each employee’s exposure to respirable silica.

3.4 Permissible Exposure Limit - a concentration of airborne respirable crystalline silica of 50 ug/m$^3$, calculated as an 8-hour TWA.

3.5 Scheduled Option – Requires initial monitoring and periodic monitoring at specific intervals based on monitoring results.

4.0 References


4.2 OSHA Instruction CPL 02-00-158, Inspection Procedures for the Respiratory Protection Standard, June 26, 2014.

Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

5.0 Exposure Control

Identification of possible foundry exposure to respirable crystalline silica. [1910.1053(f)(2)(i) and (ii)]

5.1.1 Abrasive Blasting/Shot Blasting/Wheelabrater
5.1.2 Shakeout
5.1.3 Casting Cleaning/Grinding
5.1.4 Knockout
5.1.5 Cut off
5.1.6 Furnace and Ladle Refractory Patching, Knockout and Relining
5.1.7 Housekeeping
5.1.8 Core Making
5.1.9 Mold Making
5.1.10 Melting and Casting Pouring
5.1.11 Sand Mixing
5.1.12 Other

5.2 Evaluation of respirable silica exposure

5.2.1 Air Quality Testing
5.2.1.1 Requirements and Record Keeping; (reference AFS video seminar, session 2)
5.2.2 Medical Surveillance
5.2.2.1 Requirements and Record Keeping; (reference AFS video seminar Session 3)
5.2.3 Ventilation Studies
5.2.3.1 Supply and Exhaust

5.3 Control Methods

5.3.1 Engineering Controls
5.3.1.1 Supply Air
5.3.1.2 Exhaust
5.3.2 Regulated Areas (reference AFS video seminar Session 3)
5.3.3 Work Practices
5.3.4 Respiratory Protection & PPE (reference AFS video seminar Session 3)
5.3.5 Housekeeping (reference AFS video seminar Session 3)
Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

6.0 Forms

6.1 Task Exposure Control Evaluation

6.2 Communication of Respirable Crystalline Silica Hazards to Employee
   6.2.1 Written Medical Report for Employee
   6.2.2 Written Medical Opinion for Employer
   6.2.3 Authorization for Crystalline Silica Opinion to Employer

6.3 Respiratory Program

6.4 Medical Surveillance Form

7.0 Revision and Review History Table

7.1 Employer shall review and evaluate the effectiveness of the written exposure control plan at least annually and update it as necessary. [1910.1053(f)(2)(ii)]

7.2 Document the review of each task on the Task Exposure Control Evaluation Form.

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>DD/MM/YYYY</td>
<td>Initial release</td>
</tr>
</tbody>
</table>
Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

Task Exposure Control Identification Form

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Responsible Person</th>
<th>Date</th>
</tr>
</thead>
</table>

**Task:**

**Task Description** [1910.1053(f)(2)(i)(A)]:

---

**Control Assessments** [1910.1053(f)(2)(i)(B)]

*List recommendation for each type of control. If no evaluation was conducted, indicate “None.”*

**Administrative:**

---

**Engineering:**

---

**Personal Protective Equipment:**

---

**Housekeeping Measures** [1910.1053(f)(2)(i)(C)]

---

**Review** [1910.1053(f)(2)(ii)]

Reviewed by:

Review Date:

Effectiveness:

---

**Available to employee, and others** [1910.1053(f)(2)(iii)] Yes ___ No ___

Comments

---
WRITTEN MEDICAL REPORT FOR EMPLOYEE

Employee Name: _______________________________ Date of Examination: __________

Type of Examination:

- Physical Examination [ ] Normal [ ] Abnormal (see below) [ ] Not performed
- Chest X-Ray [ ] Normal [ ] Abnormal (see below) [ ] Not performed
- Breathing Test (Spirometry) [ ] Normal [ ] Abnormal (see below) [ ] Not performed
- Test for Tuberculosis [ ] Normal [ ] Abnormal (see below) [ ] Not performed
- Other [ ] Normal [ ] Abnormal (see below) [ ] Not performed

Results reported as abnormal:

___________________________________________________________________________________

[ ] Your health may be at increased risk from exposure to respirable crystalline silica due to the following:

___________________________________________________________________________________

Recommendations:

[ ] No limitations on respirator use

[ ] Recommended limitation on use of respirator: _________________________________________

[ ] Recommended limitation on exposure to respirable crystalline silica: _______________________

___________________________________________________________________________________

Dates for recommended limitation, if applicable: ________ to ________ (MM/DD/YYYY) (MM/DD/YYYY)

[ ] I recommend that you be examined by a Board Certificate Specialist in Pulmonary Disease or Occupational Medicine

[ ] Other recommendations: * ____________________________________________________________

___________________________________________________________________________________

Your next periodic examination for silica exposure should be in: [ ] 3 years [ ] Other ________________________ (MM/DD/YYYY)

Examining Provided: ______________________ Date: __________________________

___________________________________ (signature)
Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

Provider Name: ____________________________________________________________

Office Address: ____________________________________________________________

Office Phone: ______________________________________________________________

*These findings may not be related to respirable crystalline silica exposure or may not be work-related, and therefore may not be covered by the employer. These findings may necessitate follow-up and treatment by your personal physician.

Source: Respirable Crystalline Silica standard [1910.153 or 1926.1153]
Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

WRITTEN MEDICAL OPINION FOR EMPLOYER

Employer: ________________________________________________________________

Employee Name: ___________________________ Date of Examination: ______________

Type of Examination:

[ ] Initial [ ] Periodic examination [ ] Specialist examination

[ ] Other: ___________________________________________________________________

Use of Respirator:

[ ] No limitations on respirator use

[ ] Recommended limitations on use of respirator: _________________________________

Dates for recommended limitation, if applicable: __________________ to ______________

(MM/DD/YYYY) (MM/DD/YYYY)

The employee has provided written authorization for disclosure of the following to the employer (if applicable): [ ] YES [ ] NO

[ ] This employee should be examined by an American Board Certificate Specialist in Pulmonary Disease or Occupational Medicine

[ ] Recommended limitations on exposure to respirable crystalline silica

Dates for exposure limitations noted above: __________________ to ______________

(MM/DD/YYYY) (MM/DD/YYYY)

Next periodic examination: [ ] 3 years [ ] Other __________________

Examining Provider: _______________________________________________ Date: __________________

(signature)

Provider Name: __________________________________________________________

Office Address: ____________________________________ Office Phone: ______________

[ ] I attest that the results have been explained to the employee.

_________________________________________ (signature)
Crystalline Silica Exposure Control Plan
29 CFR 1910.1053(f)(2)

The following is required to be checked by the Physician or other License Health Care Professional (PLHLCP):

[ ] I attest that this medical examination has met the requirements of the medical surveillance section of the OSHA Respirable Crystalline Silica standard (1910.1053(h) or 1926.1153(h))

_________________________________________  (signature)

Source: Respirable Crystalline Silica standard [1910.153 or 1926.1153]
AUTHORIZATION FOR CYRSTALLINE SILICA OPINION TO EMPLOYER

This medical examination for exposure to crystalline silica could reveal a medical condition that results in recommendations for (1) limitations on respirator use, (2) limitations on exposure to crystalline silica, or (3) examination by a specialist in pulmonary disease or occupational medicine. Recommended limitations on respirator use will be included in the written opinion to the employer. If you want your employee to know about limitations on crystalline silica exposure or recommendations for a specialist examination, you will need to give authorization for the written opinion to the employer to include one or both of these recommendations.

I hereby authorize the opinion to the employer to contain the following information, if relevant (please check all that apply):

___ Recommendations for limitation on crystalline silica exposure
___ Recommendation for a specialist examination

OR
___ I do not authorize the opinion to the employer to contain anything other than recommended limitations on respirator use.

Please read and initial:

___ I understand that if I do not authorize my employer to receive the recommendation for specialist examination, the employer will not be responsible for arranging and covering costs of a specialist examination.

________________________
Name (printed)

________________________  ______________________
Signature                  Date

Source: Respirable Crystalline Silica standard [1910.153 or 1926.1153]