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Practical Silica Compliance

Demystifying All of the Non-Sense!



Introductions...

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Learning Outcomes

- Define essential silica compliance program elements
- Identify written Exposure Control Plan strategies for silica compliance
- Identify Table 1 compliance solutions
- Identify compliance options for tasks/equipment outside Table 1
- Recognize the practical application of terms & definitions of the silica standard
- Identify silica standard training solutions for employees and competent persons
- Recognize the respiratory protection options for employees and medical surveillance requirements for employers
- Define the necessary recordkeeping requirements for silica standard compliance

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3



Breaking through all of the Misinformation...

- **Where is your program today?**
- **What questions do you have today?**

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4



Using Current Compliance Information

- OSHA Fact Sheets
- Compliance Directives
- Memorandum of Understandings
- Letters of Interpretation

Verify that You are Using the Most Current Revision!!

FS-3681 12/2017

FS-3681 03/2016

OSHA FactSheet



OSHA's Respirable Crystalline Silica Standard for Construction

Workers who are exposed to respirable crystalline silica dust are at increased risk of developing serious silica-related diseases. OSHA's standard requires employers to take steps to protect workers from exposure to respirable crystalline silica.

What is Respirable Crystalline Silica?

Crystalline silica is a common mineral that is found in construction materials such as sand, stone, concrete, brick, and mortar. When workers cut,

some operations, respirators may also be needed. Employers who follow Table 1 correctly are not required to measure workers' exposure to silica from those tasks and are not subject to the PEL.

OSHA FactSheet

OSHA's Crystalline Silica Rule: Construction

OSHA is issuing two standards to protect workers from exposure to respirable crystalline silica—one for construction, and the other for general industry and maritime—in order to allow employers to tailor solutions to the specific conditions in their workplaces.

Who is affected by the construction standard?

About two million construction workers are exposed to respirable crystalline silica in over 800,000 workplaces. OSHA estimates that more than 840,000 of these workers are exposed to

The construction standard does not apply where exposures will remain low under any foreseeable conditions; for example, when only performing tasks such as mixing mortar, pouring concrete footers, slab foundation and foundation walls; and removing concrete formwork.

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5

1. It is important to ensure OSHA fact sheets are the most current/revised edition?

Poll locked. Responses not accepted.

Yes

No

Total Results: 4



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Table 1 Compliance



What is “Table 1” ?

18 Equipment & Task-Specific Compliance Solutions:

- Engineering & Work Practice Control Methods
- Required Respiratory Protection - Assigned Protection Factor (APF) for shifts:
 - ✓ **Less than 4 hours**
 - ✓ **Greater than 4 hours**

Employers who follow Table 1 correctly are NOT:

1. Required to perform any sampling
2. Subject to compliance: AL 25 $\mu\text{g}/\text{m}^3$ & PEL 50 $\mu\text{g}/\text{m}^3$

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8




2. If the contractor fully and properly implements Table 1, the contractor doesn't need to perform exposure monitoring?

 Poll locked. Responses not accepted.

True

False

Total Results: 5

 Table-1 Compliance Solutions				
Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does full and proper implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)</p> 	<ul style="list-style-type: none"> ■ Use drill equipped with commercially available shroud or cowl with dust collection system. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ 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. ■ Use a HEPA-filtered vacuum when cleaning holes. 	None	None	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or cowl is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.
<p>(ii) Handheld power saws (any blade diameter)</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	None APF 10	None APF 10 APF 10	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; ■ All hoses and connections are intact.



The Burning Question...

When a contractor:

“Fully and Properly Implements” Table 1, does this protect the contractor against potential OSHA compliance violations?

✓ **YES! This is the beauty of Table 1**

Comply and employer has met its regulatory burden

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11



Compliance using Table 1

Per 1926.1153(c), ***“fully and properly implement”*** a contractor cannot be cited by OSHA.

Example:

Contractor uses a hammer drill equipped with a “Commercially Available” dust collection system to drill anchors in the ceiling/wall and, at times, there is some dust.

- **Assume everything is done correct, fully & properly implemented!!**



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12



What disqualifies a contractor's Table-1 compliance protection?

- Controls ARE NOT "Fully and Properly Implemented" during the Task or Equipment Use



Table 1 Compliance Concerns

- INADEQUATE supply of water for dust suppression
- Spray nozzle NOT applying water at the point of dust generation
- Spray nozzle IS clogged or damaged
- Hoses or connections are NOT intact
- Water applied LESS THAN flow rate specified by manufacturer
- Additional exhaust NOT provided as needed to minimize the accumulation of visible airborne dust when operating indoors or in an enclosed space
 - Area where airborne dust can build up



Continued...

- Shroud or cowling IS NOT intact and/or installed in accordance with the manufacturer's instructions
- Hose connecting the tool to the vacuum IS NOT intact and without kinks or tight bends
- Filter(s) on the vacuum ARE NOT cleaned or changed in accordance with the manufacturer's instructions to prevent clogging
- Dust collection bags ARE NOT emptied to avoid overfilling
- Air flow rate IS LESS THAN recommended by the manufacturer

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3. If there is dust being created from a Table 1 task (i.e., hammer drilling), the contractor is protected from OSHA regardless of why and doesn't need to do anything to assess/correct the situation?

 Poll locked. Responses not accepted.

True

False

Total Results: 6

Silica Terms & Definitions

Clarifying Wacky Phrases and other Non-sense



Commercially Available/Integrated

The “control” was specifically designed for the tool

Integrated – controls manufactured as part of the tool/equipment

- ✓ Built-in, mechanically attaches or similar like/kind/quality
- ✓ According to Table 1, “Equipped with commercially available...” and “Equipped with integrated...” is not considered retrofitting.





Retrofitted Equipment

Retrofitted – An attachment designed for a old model tools or equipment

- If the Retrofitted controls are **designed by the manufacturer** for that tool – it does not remove the tool from Table 1

Retrofitted – controls not designed by the manufacturer are assumed not to meet Table 1



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19

4. Contractors can purchase any "retrofitted device" components to attach to older tools to meet Table 1 requirements?

Poll locked. Responses not accepted.

True

False

Total Results: 7



Continuous Stream/Spray of Water

Jackhammer/Chipping Tools

- Continuous stream/spray of water delivered at the point of impact



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Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
	≤ 4 hours /shift	> 4 hours /shift
Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.		
<ul style="list-style-type: none"> When used outdoors. 	None	APF 10
<ul style="list-style-type: none"> When used indoors or in an enclosed area. 	APF 10	APF 10
OR		
Use tool equipped with commercially available shroud and dust collection system.		
Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
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.		
<ul style="list-style-type: none"> When used outdoors. 	None	APF 10
<ul style="list-style-type: none"> When used indoors or in an enclosed area. 	APF 10	APF 10

21



Outdoors vs. Indoors/Enclosed Area

Outdoors: areas with sufficient air movement where airborne dust does not build up without any additional exhaust.

Example: a work area with only a roof that does not affect the dispersal of dust would not be considered enclosed



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22



Outdoors vs. Indoors/Enclosed Area Cont...

Indoors/Enclosed Area: areas of limited air movement where airborne dust can build up unless additional exhaust is used.

- *Example:* Open-top structure with 3 walls and limited air movement

**A “Trench Box”
can be considered
an enclosed area**



Means of Exhaust: the contractor can use portable fans (box fans, floor fans, axial fans), portable ventilation systems, or other systems can be used that increase air movement and assist in the removal and dispersion of airborne dust

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5. A contractor cutting/sawing concrete pipe in a "trench box" in a wide open area, would use the "outdoors" section of Table 1 to determine respiratory protection requirements?

Poll locked. Responses not accepted.

True

False

Total Results: 7



Calculating a “Day” and Task Duration

- **Any use counts as a day**
 - ✓ Even if an employee uses a respirator for 15 minutes in a day, it counts as a day
- **Task duration**
 - ✓ Begins when the employee first puts the tool or equipment into operation, and continues until the tool/equipment is no longer in use.
 - ✓ For tasks conducted on an intermittent basis during a shift separated by extended intervals, **do not include the time interval between task duration.**

Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
≤ 4 hours /shift	> 4 hours /shift

For newly hired employees, not required to count days wearing a respirator at previous employer(s).

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25



Incidental Work

Tasks outside of your “scope of work”:

Tasks involving occasional, brief exposures to silica that are incidental to their primary work.

- **OSHA’s Example:** Drilling a “one-off” hole with hand-held drill, if the duration of exposure is 15 minutes or less, the exposure can reasonably be anticipated to remain under the 25 µg/m³ and the standard would not apply.
 - ✓ **Assuming no exposure for the remainder of the shift!!**

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Outside of Table 1 Compliance



Work Tasks Outside of Table 1

- **1926.1153(d) *Alternative exposure control methods:***

For tasks not listed in Table 1, or where the employer does not fully and properly implement the controls, work practices, described in Table 1:

- **(2)(i) *Exposure assessment:***

The employer shall assess the exposure of each employee who is or may reasonably be expected to be exposed to silica at or above the action level...

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Exposure Assessment

- Exposures shall be determined when:
 1. **Tasks not listed in Table 1, or**
 2. **Employer does not fully implement Table 1 controls**
 - Prove compliance by ***exposure monitoring or using other data*** from outside sources:
 1. Performance option (*Historical or Objective Data*), or
 2. Scheduled Monitoring option (*perform own monitoring of our own activities*)
- Goal** = verify no task exposes employees above PEL of $50 \mu\text{g}/\text{m}^3$ 8-hour TWA

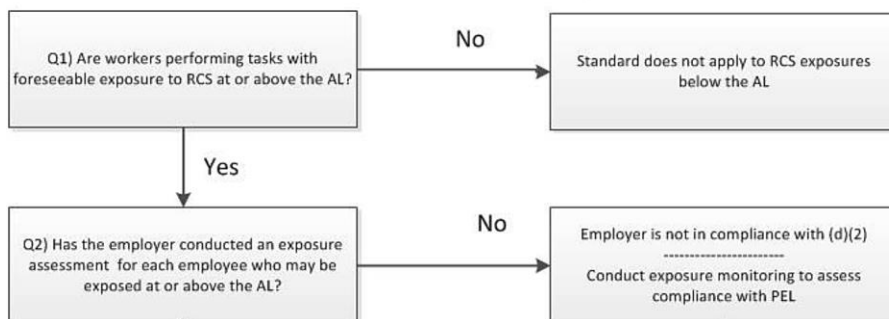
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“Can I Just Put Someone in a Respirator?”

Flowchart B- Alternative Exposure Control Methods



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Sampling Collection & Testing Intervals

Option 3 -- Section (d)(2)(iii) "Scheduled monitoring." If an employer chooses to perform scheduled air monitoring for a task, they must follow the schedule outlined in the standard:

- If initial results indicate exposures are below the action level ($25 \mu\text{g}/\text{m}^3$), no additional monitoring is necessary.
- If the monitoring results indicate exposures are above the action level, but below the PEL, additional monitoring would be required within 6 months.
- If the exposure monitoring indicates exposures above the PEL, additional monitoring must be repeated within 3 months.
- If subsequent monitoring (not the initial monitoring) indicates exposures are below the action level, the employer must repeat the monitoring until two consecutive measurements (taken 7 or more days apart) are below the action level. At that point, the employer can discontinue monitoring.

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Objective or Performance Data

Using Existing or other Representative Results:

- Data/sampling used by the contractor must have been obtained under conditions that closely resemble or have a higher exposure potential.
- If the OSHA Compliance Officer's opinion is the employer's exposure data may not be representative, then OSHA can cite 1926.1153(d)(2).
 - ✓ **e.g., new or different operations are occurring in the workplace that do not closely resemble the operations represented in the employer's exposure data**



18" vs. 48" concrete pipe



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6. Air monitoring or other "objective" data used in the exposure assessment needs to closely resemble the type of work operation (24" vs. 60" concrete pipe cutting) to be valid?

🔒 Poll locked. Responses not accepted.

True

False

Total Results: 7



Sharing Exposure Monitoring Data

Can contractors or industry associations share exposure monitoring data ("objective data") with other contractors or their members/clients?

- ✓ **Yes - provided the data is from tasks that are substantially the same like, kind and quality.**



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7. The contractor can use "objective" data from outside sources to determine/perform a task exposure assessment?

🔒 Poll locked. Responses not accepted.

Yes

No

Total Results: 7



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OSHA Compliance

How OSHA will Enforce Compliance





Initial Steps during an OSHA Inspection

- Opening conference
- Never admit to any *alleged* violations
- Direct all questions to the competent person
- Employee rights during an interview
 - Right to have *representative of your choice* present
 - Right not to answer any questions
- You take photos/video/measurements when OSHA takes photos/video/measurements
- Closing conference



“Table 1” Tasks

The Compliance Officer will not

Collect personal air samples for “Table 1” tasks and controls that are fully and properly implemented by the contractor

- ***Fully and Properly*** implementing the controls specified in Table 1 includes following the requirements relating to means of exhaust, water flow rates and enclosed cabs.



Tasks **Not** Listed in Table 1 or Where the Employer has **Not** “Fully and Properly” Implemented Table 1

- OSHA Compliance Officer must collect personal samples to measure the 8-hour TWA
- Compliance Officer must review the employer's air monitoring records, or other data the employer used to assess exposures.
- Employers must comply with paragraph (d) of the standard:
 - ✓ Respiratory protection requirements
 - ✓ Exposure assessments for tasks outside table 1
 - **1926.1153(d)(2)** - Employers must assess the exposure of each employee to the AL using either the performance option or the scheduled monitoring option.

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39



Forecasting Contractor Violations

- Employer has **not** “fully and properly” implemented the controls and/or respiratory protection specified in Table 1
- > PEL for tasks or equipment not listed in Table 1
- Administrative violations
 - ✓ **Example: monitoring shows < PEL but the employer did not perform exposure monitoring for the task or equipment outside of table 1**
- No air monitoring data for tasks/equipment outside Table 1
- Substandard respiratory protection program
- Employer's exposure data is not representative
 - ✓ **Operations are occurring in the workplace that do not closely resemble the operations represented in the exposure data**

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8. OSHA can issue a contractor a citation for noncompliance just because there is dust from a work task?

 Poll locked. Responses not accepted.

True

False

Total Results: 7



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Written Exposure Control Plan





Written Exposure Control Plan

1. Task / Equipment
2. Control Measures
3. Restricted Access
4. Housekeeping

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Exposure Control Plan

OSHA Table 1: Exposure Control Methods When Working With Materials Containing Crystalline Silica: OSHA 29 CFR 1926.1153
 The information provided in Table 1 is directly from the OSHA 29 CFR 1926.1153 Silica Standard as of 6/13/17. The contractor assumes sole responsibility for any changes, additions or modifications to this table and shall adhere to the requirements as specified in the OSHA Silica Standard.

Client Example					
Company Name					
Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection		Contractor Internal Control	Inspection Review Process
		< 4 Hours/Shift	> 4 Hours/Shift		
DRILL: Handheld & Stand-Mounted (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowl with dust collection system. 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. Use a HEPA-filtered vacuum when cleaning holes.	None	None	Equipment/Task-specific Assessment by Safety Department, Silica Competent Person, Daily Pre-Job Meeting, Equipment/Task-specific Training	Daily Pre-Job/Task Assessment & Planning, Daily Competent Person Site Inspections, Periodic Safety Department Evaluations, Client-specific Inspection Expectations
Handheld Power Saws (any blade diameter) Outdoors	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	None	APF 10	Equipment/Task-specific Assessment by Safety Department, Silica Competent Person, Daily Pre-Job Meeting, Equipment/Task-specific Training	Daily Pre-Job/Task Assessment & Planning, Daily Competent Person Site Inspections, Periodic Safety Department Evaluations, Client-specific Inspection Expectations
Handheld Power Saws (any blade diameter) Indoors or in an enclosed area	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	APF 10	APF 10	Equipment/Task-specific Assessment by Safety Department, Silica Competent Person, Daily Pre-Job Meeting, Equipment/Task-specific Training	Daily Pre-Job/Task Assessment & Planning, Daily Competent Person Site Inspections, Periodic Safety Department Evaluations, Client-specific Inspection Expectations

HOUSEKEEPING: No dry sweeping and no compressed air shall be used to clean any area or equipment with potential silica exposure. High efficiency HEPA-style vacuums shall be used to clean out all cracks, crevices and holes. Sufficient sweeping compound shall be used to minimize all visible dust and reapply as necessary.

RESTRICTED AREAS: RED DANGER tape, YELLOW CAUTION tape, signs, signals or barricades shall be used to cordon off and restrict access to areas of potential silica exposure. All restricted areas shall be communicated to affected employees and other contractors before beginning work.

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WECP Required Even for Table 1 Tasks

- Have a copy onsite, implemented by Competent Person, readily available to all employees
 - ✓ Standard does not require employers to list the name of the competent person in the WECP (because it could change daily)
 - ✓ Employees must be able to identify the designated competent person
- Description of every Task involving RCS exposure
 - ✓ Take verbatim from Table 1
- Description of Engineering Controls, Work Practices and Respiratory Protection
 - ✓ Take verbatim from Table 1
- Description of Housekeeping Measures
- Description of Procedures used to Restrict Access

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WECP for Tasks Outside of Table 1

- The WECP contains:
 - ✓ Description of Equipment/Task involving RCS exposure
 - ✓ Description of Engineering Controls, Work Practices and Respiratory Protection
 - ✓ Description of Housekeeping Measures
 - ✓ Description of Procedures used to Restrict Access
- Should copies of the exposure monitoring results be included in the WECP?
 - ✓ No, but should be available in the event employer must prove OSHA sampling results are unrepresentative of the task sampled.

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46



WECP - Table 1 Methods where Dust is Produced

True or False: *When a contractor uses Table 1 and dust is produced, is the contractor in compliance?*

Answer = True

- OSHA recognizes that small amounts of dust can be expected from equipment that is operated according to manufacturer's recommendations, however a noticeable increase in dust generation during operation of the tool is an indication that the dust controls are not operating correctly.
- The contractor should have controls in place to address

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9. A Written Exposure Control Plan is required for tasks in Table 1?

 Poll locked. Responses not accepted.

True

False

Total Results: 8



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Restricted Access

When does a Contractor need to Restrict Access to a Work Location with Potential Silica Exposure?



Conditions Requiring “Restricted Access”

Restricted Access = Minimize the number of employees exposed to respirable crystalline silica

- This includes exposures generated by other employers
- The exposure does not have to be > PEL
- Employee(s) only have to wear a respirator in Restricted Access areas if exposure > PEL of $50 \mu\text{g}/\text{m}^3$
- Multi-employer concerns
 - ✓ **Competent person should coordinate with other employers causing the exposure or affected by potential exposure**

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Housekeeping



Housekeeping & Silica Compliance

- **What should I not do?**
 - ✓ Dry sweeping or using compressed air for work place clean-up
 - ✓ Use compressed air to clean off equipment or tools
- **What can I do?**
 - ✓ Use HEPA filtered vacuum systems
 - ✓ Riding and walk-behind sweepers that contain HEPA filters
 - ✓ Use floor sweeping compound
 - ✓ Use recognized industry standards to develop SOP's

Example:

ASTM
 Standards for
 Crack Filling or
 Bridge Deck
 Overlay

Illustrate Defensible Compliance Options:

- ✓ Begin by developing standard operating procedure focusing on *MEANS & METHODS* & not housekeeping tasks
 - If blowing out "something" is part of a process then the silica housekeeping regulations do not apply
- ✓ Under the construction standard - 29 CFR 1926.302(b)(4)
 - Construction Process...*Not Housekeeping*
 - *Example:* For blowing out cracks if repairing roads



Develop a Written S.O.P.

Illustrate Defensible Compliance Options:

- ✓ Begin by developing standard operating procedure focusing on *MEANS & METHODS* & not housekeeping tasks
 - If blowing out "something" is part of a process then the silica housekeeping regulations do not apply
- ✓ Under the construction standard - 29 CFR 1926.302(b)(4)
 - Construction Process...*Not Housekeeping*
 - *Example:* For blowing out cracks if repairing roads

Company Name
Written Silica Exposure Control Plan
<u>Specific Work Task</u>
Surface preparation for Concrete Overlay operations
<u>Standard Operating Procedure (SOP)</u>
Prescribed work mythologies addressed by ASTM (American Society of Testing and Material) will be followed.
<ul style="list-style-type: none"> • The specific ASTM Standard: 4258-05 (2017) – Standard Practice for Subsurface Cleaning Concrete for Coating. <ul style="list-style-type: none"> ○ This standard addresses the use of air-blasting for surface preparation to remove debris, dust, dirt, loosely adherent laitance and concrete.
<u>Work Control Methods</u>
<ul style="list-style-type: none"> • This operation does not meet any control methods identified in "Table 1" of the Silica Standard, therefore there are a number of controls needed to minimize silica exposure to workers. <ul style="list-style-type: none"> ○ Controlled/restricted access zone ○ Work/shift scheduling and worksite logistic controls ○ Wind direction and work sequencing to assist in the dispersion of air-borne dust ○ Use of PAPR respiratory for employees performing surface preparation
<u>Restricted Access Requirements</u>
<ul style="list-style-type: none"> • Set up a "restricted access zone" using a combination of signing and flagging to clearly identify the area. • All employees not involved in the surface preparation work will be removed from the work area. • Prevailing winds will be determined and used in establishing the restricted access zone: <ul style="list-style-type: none"> ○ Employees not involved in the surface preparation work will be kept up-wind during the work operation ○ Workers who are doing the actual surface preparation work will start on the up-wind area and work down-wind
<u>Exposure Assessment and Respiratory Protection Requirements</u>
<ul style="list-style-type: none"> • An exposure assessment was completed and determined that the exposure to silica during this work operation has the potential to exceed 50 ug/m³ • Respiratory protection is required for all workers completing this operation. <ul style="list-style-type: none"> ○ A PAPR (Powered Air Purifying Respirator) will be worn by all workers ○ Proper training will be completed with each individual prior to using the PAPR

10. Compressed air can't be used for any task/operation where silica may be generated?

🔒 Poll locked. Responses not accepted.

True

False

Total Results: 9

Silica Competent Person

1926.1153(b) an individual who is capable of identifying existing and foreseeable silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them. The competent person must have the knowledge and ability necessary to fulfill the responsibilities in paragraph (g) of this section.

- **1926.1153(g)** – Written Exposure Control Plan



Competent Person Training



OSHA INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: TBD

EFFECTIVE DATE: Draft 9/27/2016

SUBJECT: Inspection Procedures for the Respirable Crystalline Silica Standards

(Page-7 of Inspection Procedures)

Note: The employer can designate any of his or her employees to be a competent person if the employee is qualified, including the employee who does the work on a jobsite. As such, an employee who participates in silica-generating tasks on a job could be designated a competent person if he/she is trained and knowledgeable on how to properly implement controls on the tools they use, can recognize if the controls are not working, and has the authority to correct non-working control(s). **The standard does not specify the training needed for a competent person. However, the employer is responsible for providing sufficient training to equip the competent person with the knowledge and ability to implement the written exposure control plan. The training will depend on the types of work done, and in some cases, successfully completing training required under the silica standard and OSHA's hazard communication standard will be enough.** In other cases, additional training may be needed.



Competent Person – Responsibilities Onsite

- Must **continuously** be at job site to implement/manage WECP.
 - ✓ Cannot visit occasionally, must be physically at the job site.
- Know which equipment/tasks involve exposure to silica
- Conduct frequent and regular inspections of the work site to ensure the WECP is being fully and properly implemented.
- For tasks requiring respiratory protection, ensure the correct respiratory protection is provided, properly worn and maintained.
- Ensure correct housekeeping measures reduce exposure.
- Identify Restricted Access Areas and enforce COMPLIANCE
- Able to identify situations that could result in high exposures
 - ✓ *e.g. – equipment failure, repositioning employees*
- Understand health hazards of silica

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11. A Competent Person needs to be on the jobsite at all times when a task is being performed that creates a silica exposure?

 Poll locked. Responses not accepted.

Yes

No

Total Results: 9



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Employee Training



Employee Training

- Employer's Written Exposure Control Plan
 - ✓ Specific tasks in workplace that could result in exposures
 - ✓ Specific measures implemented to reduce/eliminate exposure
 - Engineering and work practice controls, respiratory protection requirements
- OSHA's HAZCOM Standard (29 CFR 1910.1200) – Existing
 - ✓ Hazards of RCS containing products, access to labels and SDS's
- Employees must also be trained on:
 - ✓ Contents of OSHA rule
 - ✓ Tool/Equipment operation & maintenance in accordance with manufacturer's instructions to minimize dust emissions.
 - ✓ Health hazards associated with exposure to RCS
 - ✓ If necessary, medical surveillance program elements

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12. OSHA requires employees to attend a 30 min general overview of the Silica Standard to comply with the new compliance regulations.

 Poll locked. Responses not accepted.

True

False

Total Results: 9



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Multi-employer Jobsites





Multi-Employer Considerations

- **Controlling Contractor** - Usually the General Contractor that is in charge of the project and is responsible for the overall silica exposure mitigation of the project.
 - ✓ **A Subcontractor could also be identified as the controlling contractor, if they have lower-tier subcontractors working for them**
- **Creating Contractor** - the contractor that creates the Silica exposure through its work activities
- **Exposing Contractor** - the contractor that allows their employees to work next to a silica exposure created by another contractor.



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63

13. All of the following types of employers could be cited for noncompliance by OSHA for silica exposure to employees, EXCEPT?

Poll locked. Responses not accepted.

Multi-employer

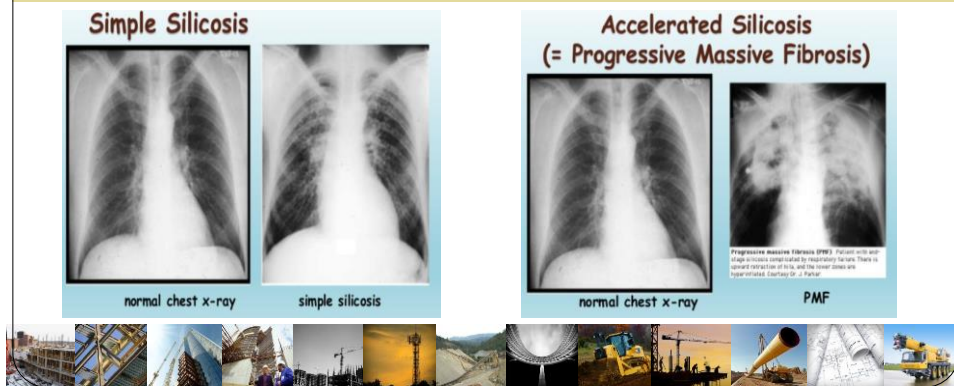
Creating Employer

Exposing Employer

Controlling Employer

Total Results: 6

Respiratory Protection and Medical Surveillance



Respiratory Protection is NOT Medical Surveillance

- **Respiratory Protection**
 - ✓ Triggered by employee exposure > PEL
- **Medical Surveillance**
 - ✓ Triggered by the number of days a respirator is used
 - 30 or more days per year wearing a respirator to protect against silica exposure



Medical Surveillance

- Employer must make medical surveillance **available** at no cost to each affected employee
 - ✓ **Worker who uses a respirator for 30 days/year or more**
- All exams and procedures must be performed by PLHCP – after initial, exam must be repeated every 3 years or more often if recommended

How does a Contractor ensure they get full access to the medical evaluation?

- How can a contractor see the full medical report?
 - ✓ Include waiver for employee's medical report in job application.
 - ✓ Ask employee to sign waiver
 - *form included in Appendix-B of silica standard*



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67



What is “Make Available” Mean?

- Does a contractor have to require employees to have medical surveillance?
 - ✓ **No, the employer can only offer the medical exam at no cost. Employee does not have to accept.**
- What if employee refuses to go to medical appointment?
 - ✓ **Recommendation:**
 - Create a specific form employees must sign indicating refusal to participate in medical surveillance
 - Don't allow employee to work in silica exposure conditions

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68

14. When does a contractor have to make available Medical Surveillance exams to works?

🔒 Poll locked. Responses not accepted.

- After 1 year of employment
- After 45 days of using a respirator
- The first day they start work with a contractor
- 30 days or more in a year

Total Results: 7



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Recordkeeping





Recordkeeping

Retention of Records

Document Type	Time Period
Medical Surveillance	Employed more than one year: duration of employment plus 30 years, Employed less than one year: term of employment as long as record given to employee upon departure
Exposure Records	30 years
Objective Data	As long as you rely on the record
Training	None
Safety Data Sheets	30 years

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71



Burden of Recordkeeping

- NIOSH/ACGIH processes & necessary air monitoring data
 - ✓ Date of measurement for each sample taken.
 - ✓ Task monitored; sampling and analytical methods used.
 - ✓ Number, duration, and results of samples taken.
 - ✓ Identify of the laboratory that performed the analysis.
 - ✓ Type of PPE; such as respirators, worn by the employees monitored.
 - ✓ Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.
- Objective data
 - ✓ Crystalline silica-containing material in question
 - ✓ Source of the objective data
 - ✓ Testing protocol and results of testing
 - ✓ Description of the process, task, activity
 - ✓ Other data relevant to the process, task, activity, material, or exposure

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In Closing...

- Table 1 Compliance = *Fully & Properly Implementing Controls*
- Written Exposure Control Plan for all RCS Tasks/Equipment
- Silica Competent Person and Properly Trained Employees
- Restricted Areas & Housekeeping Methods
- Use of Respiratory Protection, when necessary
- Multi-employer Communication and Coordination



Thank You!



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3/13/2018

74