CONTROL SILICA DUST

Breathe Easier

Respirable Crystalline Silica: Compliance Directive (coming soon)

and

National Emphasis Program (CPL 03-00-023)

WITC Webinar
March 26, 2020

OSHA Occupational Safety and Health Administration

Background/Overview

- Final Rule published on March 25, 2016
- OSHA began enforcing the construction standard (29 CFR § 1926.1153) on September 23, 2017
- OSHA began enforcing general industry and maritime standard (29 CFR § 1910.1053) on June 23, 2018


FEDERAL REGISTER

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Book 2 of 3 Books
Pages 16285–16890

Part II

Department of Labor

OSHA Occupational Safety and Health Administration

Background/Overview *(Cont.)*

- OSHA issued Interim Enforcement Guidance:
  - Construction - October 19, 2017
  - General Industry/Maritime - June 25, 2018

- OSHA issued Frequently Asked Questions (FAQs):
  - Construction
  - General Industry/Maritime

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National Emphasis Program for the Silica standards

- National Emphasis Program for the Silica standards was published on February 5, 2020:
  - Contains an updated list of target industries, listed by North American Industry Classification System (NAICS) codes
  - Area Offices must conduct outreach activities three months prior to initiating programmed RCS inspections.

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Crystalline Silica Is Found In Many Common Materials

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Health Effects

- Exposure to respirable crystalline silica has been linked to:
  - Silicosis
  - Lung cancer
  - Chronic obstructive pulmonary disease (COPD)
  - Kidney disease

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Industries and Operations with Exposures

- Construction
- Glass manufacturing
- Pottery products
- Structural clay products
- Concrete products
- Foundries
- Dental laboratories
- Paintings and coatings
- Jewelry production
- Refractory products
- Asphalt products
- Landscaping
- Ready-mix concrete
- Cut stone and stone products
- Abrasive blasting in:
  - Maritime work
  - Construction
  - General industry
- Refractory furnace installation and repair
- Railroads
- Hydraulic fracturing for gas and oil

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General Industry / Maritime
29 CFR § 1910.1053

(a) Scope

(b) Definitions

(c) Permissible Exposure Limit

(d) Exposure assessment

(e) Regulated areas

(f) Methods of compliance

- (1) Engineering and work practice controls
- (2) Written exposure control plan

(g) Respiratory protection

(h) Housekeeping

(i) Medical surveillance

(j) Communication of silica hazards

(k) Recordkeeping

(l) Dates

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Construction Standard 29 CFR § 1926.1153

(a) Scope

(b) Definitions

(c) Specified exposure control methods

OR

(d) Alternative exposure control methods

- (1) PEL
- (2) Exposure Assessment
- (3) Methods of Compliance

(e) Respiratory protection

(f) Housekeeping

(g) Written exposure control plan

(h) Medical surveillance

(i) Communication of silica hazards

(j) Recordkeeping

(k) Dates

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Construction Interim Enforcement

Standard Interpretations / Interim Enforcement Guidance for the Respirable Crystalline Silica in Construction Standard, 29 CFR 1926.1153

- **Standard Number:** 1910.134 ; 1910.1053 ; 1910.1200 ; 1926.1153 ; 1926.1153(c) ; 1926.1153(c)(1) ; 1926.1153(d) ; 1926.1153(d)(1) ; 1926.1153(d)(2) ; 1926.1153(d)(2)(iii)(B) ; 1926.1153(d)(2)(iii)(E) ; 1926.1153(d)(2)(v) ; 1926.1153(d)(3) ; 1926.1153(e)(1)(ii)(C) ; 1926.1153(i)(2)

OSHA requirements are set by statute, standards and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at http://www.osha.gov.

October 19, 2017

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

THROUGH: THOMAS GALASSI
Acting Deputy Assistant Secretary

FROM: PATRICK J. KAPUST, Acting Director
Directorate of Enforcement Programs

SUBJECT Interim Enforcement Guidance for the Respirable Crystalline Silica in Construction Standard, 29 CFR 1926.1153

https://www.osha.gov/laws-regs/standardinterpretations/2017-10-19

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New Permissible Exposure Limit (PEL)

- Old PEL = $\cancel{\dfrac{10\ mg/m^3}{(\%\ Silica + 2)}}$

- **New PEL** = 50 µg/m^3 as an 8-hour TWA
- **Action Level (AL)** = 25 µg/m^3 as an 8-hour TWA

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Scope and Application

- Both standards require employers to assess the exposure of each employee who is or may be reasonably be expected to be exposed to silica at or above the 25 µg/m^3 (AL) as an 8-hour TWA.

- Standards not applicable where objective data are available demonstrating exposure below the AL under *any foreseeable conditions*.

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Scope and Application – *Indistinguishable* tasks

- General industry and maritime employers can comply with the construction standard (29 CFR 1926.1153), instead of the general industry and maritime silica standard, in certain circumstances where the task is indistinguishable from construction.

- ***Indistinguishable*** tasks:
  - Tasks that are performed primarily during maintenance and repair activities in general industry or maritime settings, and involve a task described in the construction standard's Table 1. These tasks must be of the same nature and type as the construction tasks.

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Non-Routine Only

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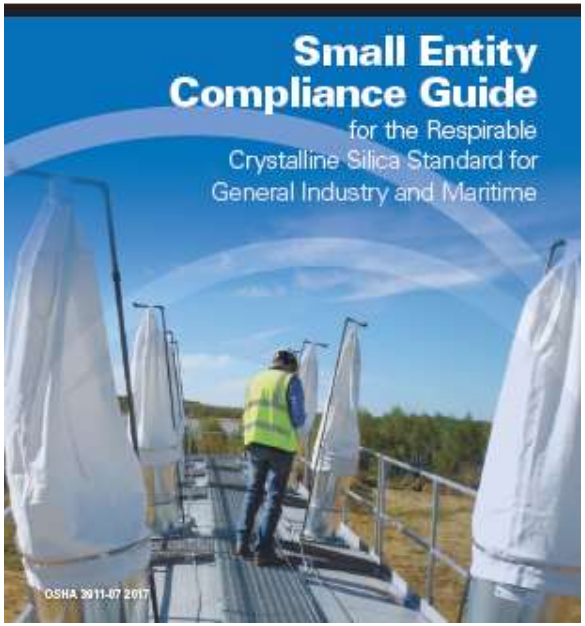

Conversely, the construction standard could not be used by a general industry and maritime employer for sanding or cutting of concrete blocks in a concrete block manufacturing plant, because that is a task performed regularly in the same environment and conditions. Such an employer would not require the accommodation of Table 1, which is intended in part to address tasks performed in different environments and conditions. Similarly, an employer whose business includes chipping out concrete from inside the drums of ready-mixed concrete trucks using pneumatic chipping tools may not follow the construction standard because that task will be performed regularly and in a relatively stable and predictable environment.

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Exposure assessment/ Alternative exposure control methods
(General Industry/Maritime or Construction)

Performance Option

- Must assess ***before*** work begins.
- Use any combination of air monitoring data or objective data
  - sufficient to accurately characterize employee exposure to respirable crystalline silica.
- Can be within a range (i.e. between AL and PEL).

Scheduled Monitoring Option

- Must assess ***as soon as work begins***.
- If monitoring indicates:
  - Initial below the AL: no additional monitoring
  - ≥ AL but ≤ PEL – repeat within 6 months);
  - Above PEL - repeat within 3 months;
- Other monitoring required to discontinue monitoring or when circumstances change.

Exposure Assessment Info

- Job Description
- Task Description (don’t forget clean ups)
- Task Frequency: Hrs/Day and Days/Year
- Current Dust Controls
- Previous Monitoring
- # Employees Involved
- Comments/Explanation

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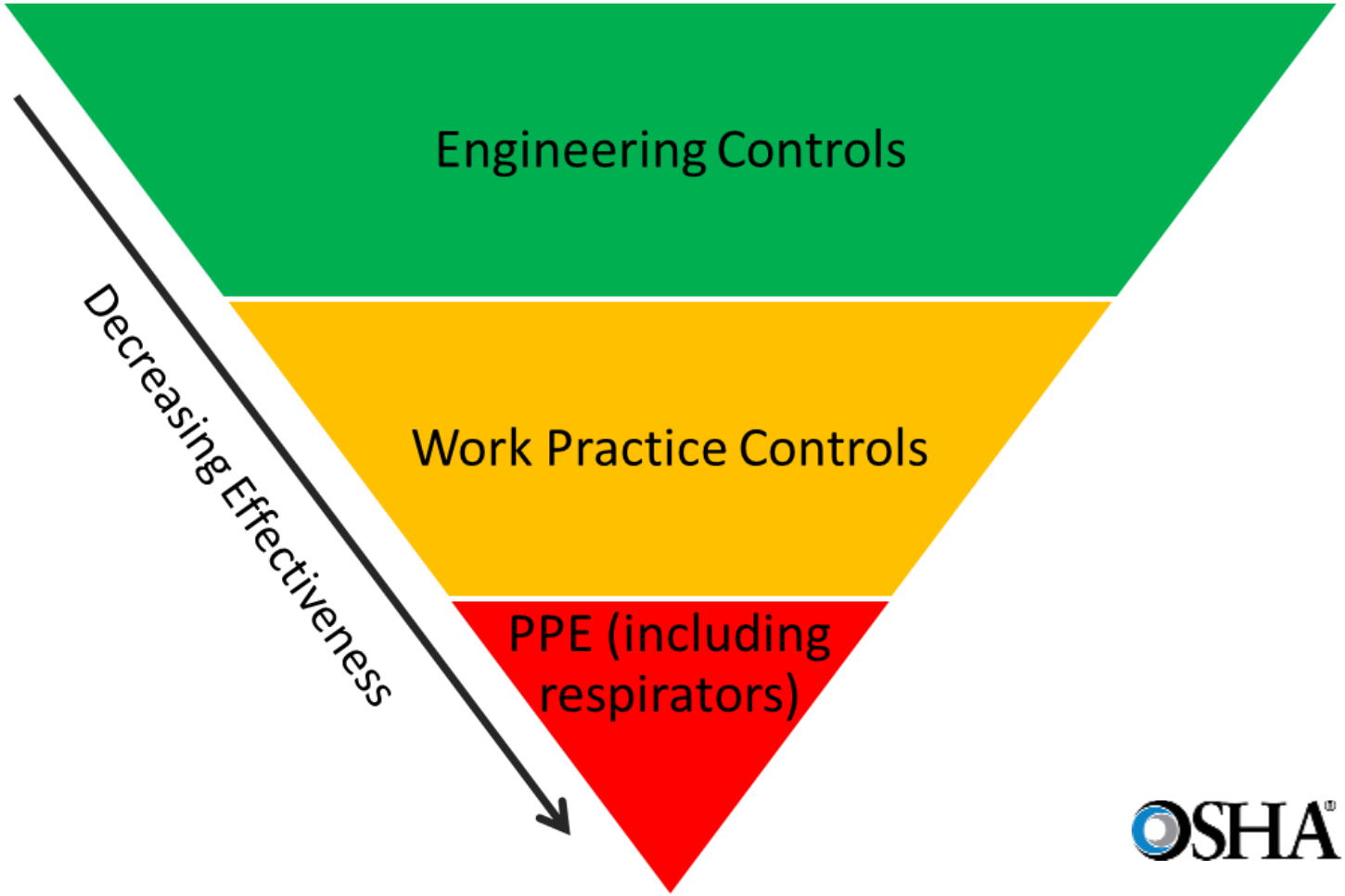
Protecting Employees

Hierarchy of Controls



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Added Pressure to not rely on Respirators

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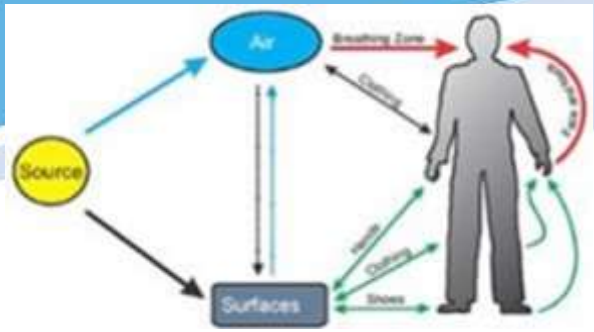
Exposure Variability

- Exposures may differ due to workplace conditions such as fluctuations in environmental conditions or air movements.
- Where an employer's sampling results differ from OSHA's:
  - Employer has the burden to demonstrate that OSHA's samples are not representative of normal exposure levels.
  - OSHA will compare both sets of exposure data to determine whether the employer's data are representative of observed conditions.

Use of Objective Data



- Includes air monitoring data from:
  - Industry-wide surveys;
  - Data provided by equipment manufacturers, trade or professional associations; or
  - Calculations based on the composition of a substance.

- Must demonstrate:
  - Employee exposure is associated with a particular product or material or a specific process, task, or activity.

- Must reflect current workplace conditions:
  - Closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

Exposure Assessment – notification

- Performance option assessment - the period for notification begins <u>when the employer completes the assessment</u>.
- Scheduled monitoring option assessment - the period for notification begins <u>when employer receives the monitoring results.</u>
- Results to each affected employee in writing within 15 working days for general industry/maritime or 5 working days for construction.

Regulated Areas
(General industry/Maritime - Only)

DANGER
RESPIRABLE CRYSTALLINE SILICA
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
WEAR RESPIRATORY PROTECTION IN THIS AREA
AUTHORIZED PERSONNEL ONLY

- General Industry:
  - Establish where exposures are expected to exceed the PEL.
- Employer must:
  - Mark off the area:
    - Cones, tape, barricades, or textured flooring
  - Post warning signs at entrances.
  - Limit access.
  - Provide and require use of respirators.

- Construction:

- **No** requirement to have a regulated area.

- But, need procedures to restrict access, when necessary (ECP).

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Regulated Areas (con't)

- "Temporary" regulated areas -
  - An area could be a regulated area on days when a particular silica-generating activity causes exposures to exceed the PEL. However, on other days, when that activity is not occurring and exposures do not exceed the PEL, and are not reasonably expected to exceed the PEL, employers do not need to treat the area as a regulated area.

- Some areas may be so high that any exposure in those areas could reasonably be expected to be in excess of the PEL.
  - In such cases, the regulated area requirements in 29 CFR 1910.1053(e) would apply, regardless of any employer work rules limiting (but not precluding) employee entry.

Methods of Compliance

- If exposures remain *above the PEL*, but the employer can demonstrate it has implemented all feasible engineering and work practice controls, then the employer is in compliance with 29 CFR 1910.1053(f)(1) and 29 CFR 1926.1153(d)(3) (assuming the provision and use of required respiratory protection is in accordance with the standard).

Written Exposure Control plan (ECP)
(General industry/Maritime and Construction)

- Must contain a description of:
  - Tasks in the workplace with sufficient detail;
  - Engineering controls, work practices, and respiratory protection used;
  - Housekeeping measures; and
  - Restricting access (e.g., use of barriers, posting signs).
- Annual review and evaluation of effectiveness.
- Readily available to each employee.
- Construction only - Designate a competent person to make frequent and regular inspections, and implement the plan.

- An ECP is not required when employer can demonstrate that employee exposure is below the AL of 25 µg/m^3 under any foreseeable conditions.

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Respiratory Protection
(General Industry/Maritime)

Employers must:

- Provide respirators if needed
- Follow the Respiratory Protection standard, 29 CFR 1910.134

Department of Labor/Shawn T Moore

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Housekeeping
(General industry/Maritime and Construction)

When cleaning up silica dust, avoid:

- Dry sweeping/brushing.
- Compressed air without a ventilation system to capture the dust.

Employers are allowed to use:

- Commercially-available dust suppression sweeping compounds.
- Drivable powered sweepers with HEPA filters for vacuuming.

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Medical Surveillance

General Industry/Maritime Standard

- **For employees exposed to silica for 30 or more days/year:**
  - Above the PEL (until June 23, 2020)
  - At or above the action level (starting June 23, 2020)

Construction Standard

- **For employees who will be required to use a respirator for 30 or more days/year**

- **Offered:**
  - Within 30 days of assignment
  - Every three years to workers who continue to be exposed above the trigger.
- **Provided at no cost to employee:**
  - Exams, tests, and time spent traveling and getting exam

Amanda Mills/CDC

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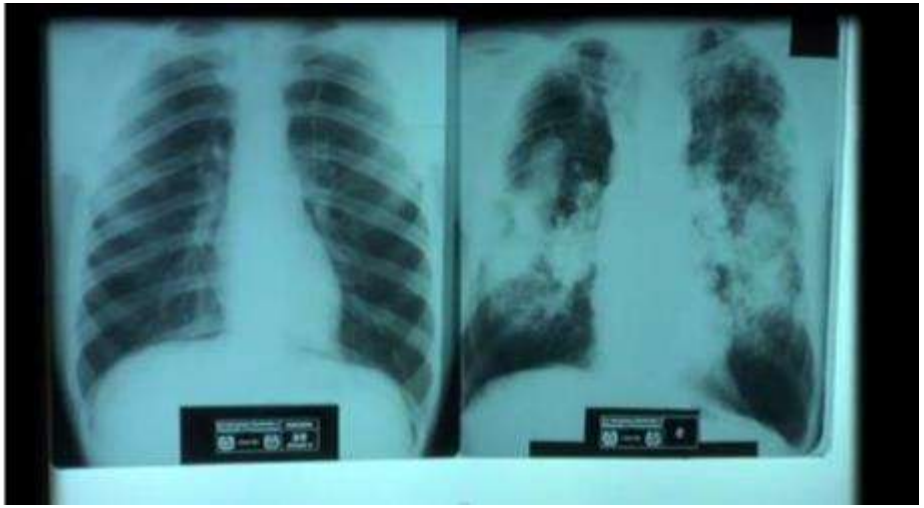
Medical Exams


Lauren Bishop/CDC



- Medical and work history
- Physical exam
- Lung function test
- Tuberculosis (TB test)
- X-rays

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Medical Report/Opinion

- **Medical Report:**
  - *Issued to the employee*
  - Includes:
    - Any medical conditions.
    - Recommended limitations on respirator use and exposure to silica.
    - Recommendation for specialist exam.

- **Medical Written Opinion (to employer):**
  - Recommended respirator limitations.
  - If employee consents, the opinion may include:
    - Recommended limitations on exposure to silica.
    - Recommended specialist exam.

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Communication of Hazards

- Applies to all employees covered by the standards.
- Employer must comply with the hazard communication standard, 29 CFR § 1910.1200:
  - Employee has access to labels on containers of RCS and SDS; and,
  - Trained in accordance with the provisions of HCS.
- Employee information and training shall include:
  - Health hazard associated with RCS; and,
  - Specific measures (engineering controls, work practices, and respirators) implemented to protect employees from exposure to RCS.
- The *Hazard Communication* standard is applicable at any level of exposure.

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Required Training

Each employee covered by the RCS standard must <u>demonstrate knowledge and understanding</u> of the following:

- Health hazards
- Specific tasks
- Controls
- Content of standard
- Medical surveillance

- Other training:
  - Hazard communication
  - Respiratory protection

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Recordkeeping

- Employers must keep:
  - Air monitoring data
  - Objective data
  - Medical surveillance
- Make them available to employees, their representatives, and OSHA.

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Construction – List of Table 1 Entries

- Stationary masonry saws
- Handheld power saws
- Handheld power saws for fiber cement board
- Walk-behind saws
- Drivable saws
- Rig-mounted core saws or drills
- Handheld and stand-mounted drills
- Dowel drilling rigs for concrete
- Vehicle-mounted drilling rigs for rock and concrete
- Jackhammers and handheld powered chipping tools
- Handheld grinders for mortar removal (i.e. tuckpointing)
- Handheld grinders for other than mortar removal
- Walk-behind milling machines and floor grinders
- Small drivable milling machines
- Large drivable milling machines
- Crushing machines
- Heavy equipment and utility vehicles to abrade or fracture silica materials
- Heavy equipment and utility vehicles for grading and excavating

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Respirable Crystalline Silica Standard for Construction

Two Choices

For Employers:

1. Specified Exposure Controls

2. Alternative Exposure Controls

Other Requirements: All employers

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Construction –
Specified Exposure Control Methods

- If Table 1 is used - employers are required to fully and properly implement the engineering controls, work practices, and respiratory protection set forth for the relevant task on Table 1.
- Employers that *fully and properly implement controls* according to Table 1 do not have to:
  - Conduct exposure assessments for employees engaged in those tasks.
  - Demonstrate compliance with the PEL.
- Employers are required to follow elements of the tool manufacturer's instructions relating to airborne dust emissions.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling 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-filter vacuum when cleaning holes.	None	None

Vacuum Dust Collection Systems

Employers must:

- Ensure tools are equipped with *commercially available* shroud and dust collection system.
- Ensure tools operate and are maintained in accordance with manufacturer's instructions to minimize dust emissions.
- Ensure dust collectors 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.

Employers should check that:

- The shroud 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.

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Handheld Drill

Shroud

Cowl

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(ii) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.		
	–When used outdoors.	None	APF 10
	–When used indoors or in an enclosed area.	APF 10	APF 10
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		

Handheld Power Saw

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Wet Methods

Employers shall:

- Use saws equipped with integrated water delivery system that continuously feeds water to the blade.
- Operate and maintain tools in accordance with manufacturer's instructions to minimize dust emissions.
- Check for:
  - 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;
  - All hoses and connections are intact.

Cutting block using water to control the dust

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Competent Person - Construction

- Construction employers must designate a competent person to implement the written exposure control plan
- *Competent person* is an individual capable of identifying existing and foreseeable respirable crystalline silica hazards, who has authorization to take prompt corrective measures
- Makes frequent and regular inspection of job sites, materials, and equipment

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Respiratory Protection – (Construction)

- Respirators are required:
  - Where specified by Table 1 (APF 10 or 25); or
  - For tasks not listed in Table 1; or where specified engineering, work practices, and work practice controls have not been fully implemented.
  - By all employees engaged in the task for entire duration of the task.
  - When feasible controls cannot reduce exposures to the PEL
- Must adhere to OSHA's Respiratory protection standard, 29 CFR 1910.134.
- Standard specifies required respirators when performing one or more tasks and the total duration is either more than or less than 4 hours per shift

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Silica Directive Summary

- ✓ Identify tasks where anticipated exposures can exceed AL
- ✓ Conduct employee exposure assessments
  or follow Table 1 (for Construction)
- ✓ Establish written exposure control plan
  and designate competent person (Construction)
- ✓ Implement feasible dust controls to reduce exposures
- ✓ Require use of respiratory protection if exposures exceed PEL
- ✓ Prohibit use of compressed air and dry sweeping for cleaning
- ✓ Offer medical surveillance as required to employees that wear respiratory protection
- ✓ Train employees on hazards and control methods
- ✓ Maintain records

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Respirable Crystalline Silica (RCS) National Emphasis Program (CPL 03-00-023)

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RCS-NEP

- **NEP for Respirable Crystalline Silica (RCS-NEP)**
  - Published on February 5, 2020
  - To enforce the 2016 Silica standards
  - And target industries with the greatest number of exposed workers
- **Goals**
  - Reduce or eliminate worker exposures to respirable crystalline silica (RCS) in general industry, construction, and maritime
  - Annually do 2% of federal inspections (600 - 700)

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RCS-NEP *(Con't)*

- **Why a revised NEP?**
  - Even at the lowered PEL, still significant risks over work life for respiratory disease (e.g., silicosis, lung cancer, COPD) and kidney disease
  - DOL 2018-2022 Strategic Plan: *OSHA will target high-risk industries*
- **How many workers at risk? Over a million workers are exposed to RCS!!!**
  - 950,000 workers (850,000 construction / 100,000 general industry & maritime) exposed above new PEL of 50 µg/m^3

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RCS-NEP *(Con't)*

- **What industries are targeted?**
  - Focusing on top half-million+ of highest-exposed workers (≥ 2 x PEL)
  - 500,000 workers in construction (lists 10 industry codes, 4-digit NAICS)
  - 50,000 workers in general industry and maritime (top 30 of the 102 codes listed, 6-digit NAICS)
  - 30,000 workers in electric power and in state and local government construction

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RCS-NEP (*Cont.*)

- **Some of the targeted construction industries (4-digit NAICS):**
  - Building construction (residential and nonresidential)
  - Building finishing contractors
  - Utilities system construction
  - Highway, street, and bridge construction
  - Land subdivision

RCS-NEP *(Cont.)*

- **Some of the targeted general industries (6-digit NAICS):**
  - Clay building materials and refractories manufacturing
  - Concrete block and brick manufacturing
  - Cut stone and stone product manufacturing
  - Paint and coating manufacturing
  - Foundries (iron, steel, aluminum)

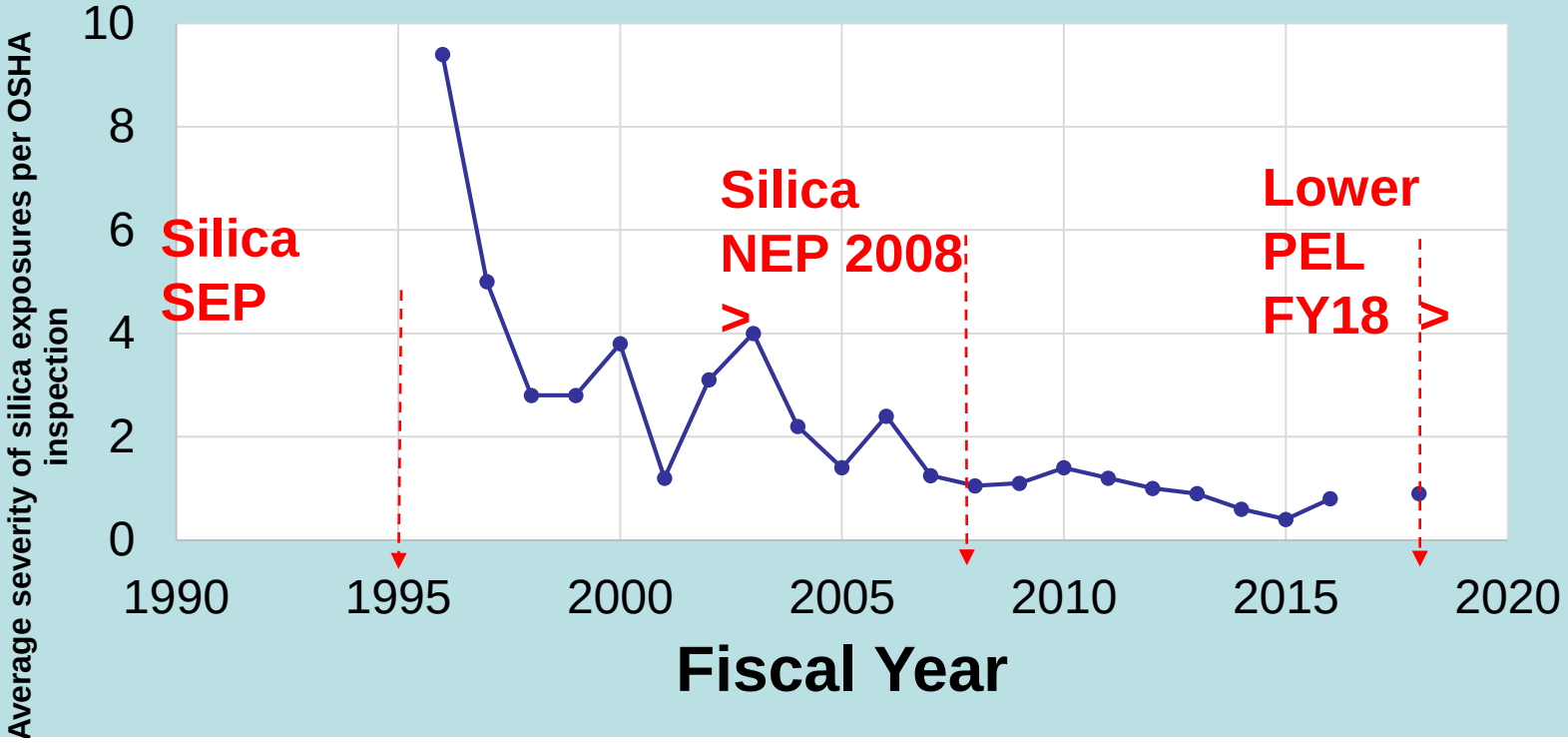
RCS-NEP *(Cont.)*

- **Some of the targeted specialty industries (6-digit NAICS):**
  - Ship building and repairing
  - Rail transportation
  - Support activities for oil and gas production / Hydraulic fracturing
  - Landscaping services

RCS-NEP (*Con't*)

- **Targeting methods and master list generation:**
  - NEP lists NAICS codes and silica-related construction operations
  - Establishment Targeting List–Generation System (ListGen)
  - Construction Inspection Targeting Application (C-target)
  - CSHO drive-bys and local knowledge of the Area Office
  - Include establishments with fewer than 10 workers

Historical Silica Exposures Average Severity per OSHA Inspection



OSHA Sampling Data History

OSHA's Chemical Air Sampling for 2008 through 2017

OSHA Data	Silica	All chemicals (including silica)
Number of personal air samples	13,324	291,860
Number of personal air samples > PEL	1,885	7,353
Percent of personal air samples > PEL	14.1%	2.5%

RCS-NEP (*Cont.*)

- **Differences from the 2008 Silica NEP**
  - Area and Regional Offices are not required to have a Silica local emphasis program (LEP) or regional emphasis program (REP)
  - State Plans participation in the NEP is now mandatory
  - Personal air sampling may not be necessary

RCS-NEP (*Cont.*)

- **Differences from the 2008 Silica NEP**
  - Area Offices must conduct outreach programs three (3) months prior to RCS NEP programmed inspections
  - Area Offices no longer have to send copies of abatement verification in follow-up case files to the National Office
  - For coding in the OSHA Information System (OIS), new NEP establishes the new code, “RCS-NEP”

Silica-related Guidance materials

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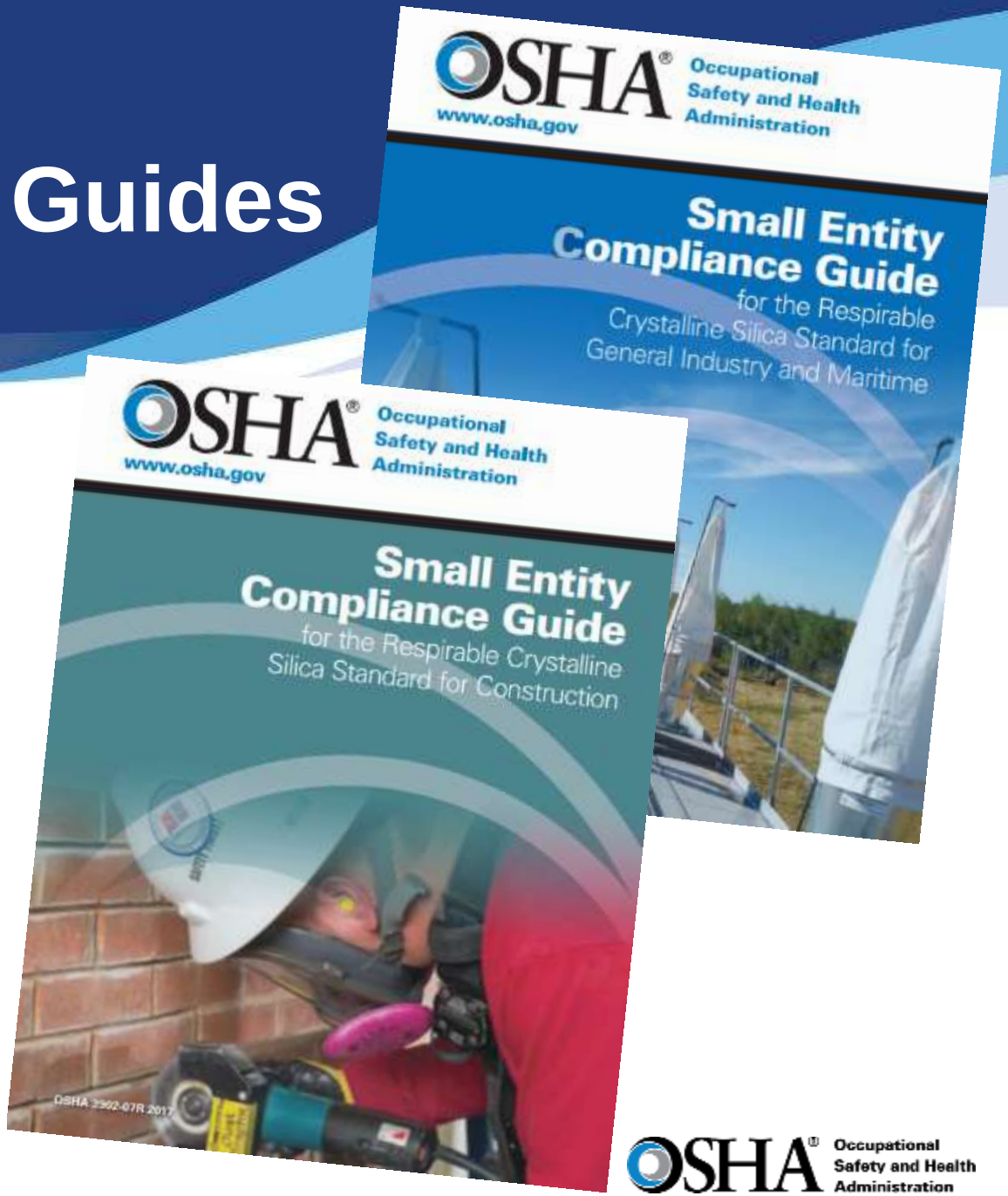
Small Entity Compliance Guides

- Available for both construction
www.osha.gov/Publications/OSHA3902.pdf
and
general industry/ maritime
www.osha.gov/Publications/OSHA3911.pdf

- Explain the provisions of the standards



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Outreach and Guidance Materials
OSHA Safety and Health Topics Page

UNITED STATES
DEPARTMENT OF LABOR

Find it in OSHA

A TO Z INDEX

Occupational Safety and Health Administration

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Safety and Health Topics / Silica

Silica

- Health Effects
- Construction
- General Industry and Maritime
- Sampling and Analysis
- FAQs

Overview

Crystalline silica is a common mineral found in the earth's crust. Materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, bricks, and artificial stone.

Respirable crystalline silica – very small particles at least 100 times smaller than ordinary sand you might find on beaches and playgrounds – is created when cutting, sawing, grinding, drilling, and crushing stone, rock, concrete, brick, block, and mortar. Activities such as abrasive blasting with sand; sawing brick or concrete; sanding or drilling into concrete walls; grinding mortar; manufacturing brick, concrete blocks, stone countertops, or ceramic products; and cutting or crushing stone result in worker exposures to respirable crystalline silica dust. Industrial sand used in certain operations, such as foundry work and hydraulic fracturing (fracking), is also a source of respirable crystalline silica exposure. About 2.3 million people in the U.S. are exposed to silica at work.

Workers who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including:

Highlights

- Small Entity Compliance Guides
  - Construction
  - General Industry and Maritime
- Table 1 Task Fact Sheets for Construction
- Interim Enforcement for the Respirable Crystalline Silica in Construction Standard
- FAQs
- Silica Rule Updates
- Submit a question

https://www.osha.gov/dsg/topics/silicacrystalline/index.html

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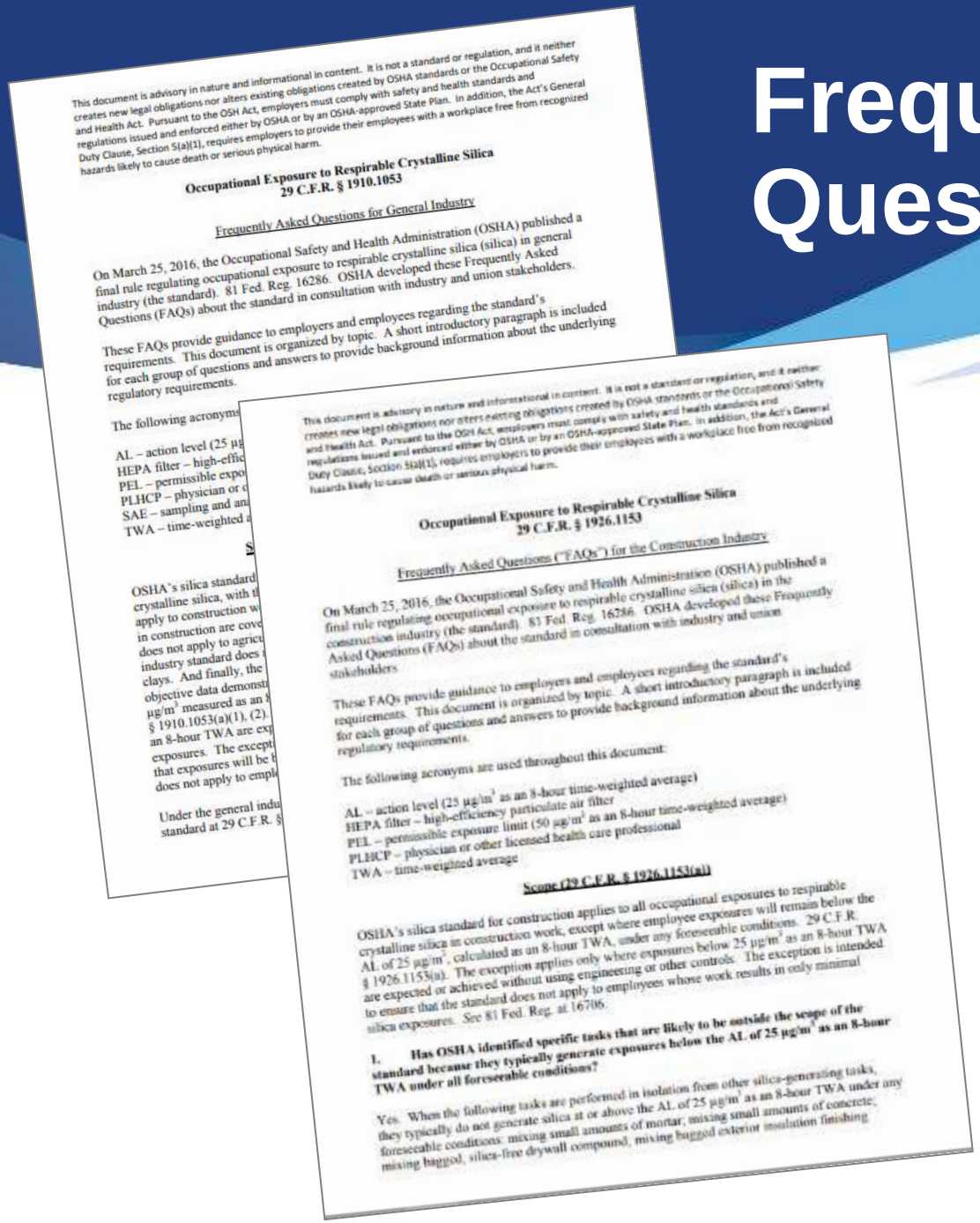
Frequently Asked Questions



This document is advisory in nature and informational in content. It is not a standard or regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the Occupational Safety and Health Act. Pursuant to the OSH Act, employers must comply with safety and health standards and regulations issued and enforced either by OSHA or by an OSHA-approved State Plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

Occupational Exposure to Respirable Crystalline Silica
29 C.F.R. § 1910.1053

Frequently Asked Questions for General Industry

On March 25, 2016, the Occupational Safety and Health Administration (OSHA) published a final rule regulating occupational exposure to respirable crystalline silica (silica) in general industry (the standard). 81 Fed. Reg. 16286. OSHA developed these Frequently Asked Questions (FAQs) about the standard in consultation with industry and union stakeholders.

These FAQs provide guidance to employers and employees regarding the standard's requirements. This document is organized by topic. A short introductory paragraph is included for each group of questions and answers to provide background information about the underlying regulatory requirements.

The following acronyms

AL – action level (25 µg
HEPA filter – high-effic
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PLHCP – physician or c
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This document is advisory in nature and informational in content. It is not a standard or regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the Occupational Safety and Health Act. Pursuant to the OSH Act, employers must comply with safety and health standards and regulations issued and enforced either by OSHA or by an OSHA-approved State Plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

Occupational Exposure to Respirable Crystalline Silica
29 C.F.R. § 1926.1153

Frequently Asked Questions ("FAQs") for the Construction Industry

On March 25, 2016, the Occupational Safety and Health Administration (OSHA) published a final rule regulating occupational exposure to respirable crystalline silica (silica) in the construction industry (the standard). 81 Fed. Reg. 16286. OSHA developed these Frequently Asked Questions (FAQs) about the standard in consultation with industry and union stakeholders.

These FAQs provide guidance to employers and employees regarding the standard's requirements. This document is organized by topic. A short introductory paragraph is included for each group of questions and answers to provide background information about the underlying regulatory requirements.

The following acronyms are used throughout this document:

AL – action level (25 µg/m³ as an 8-hour time-weighted average)
HEPA filter – high-efficiency particulate air filter
PEL – permissible exposure limit (50 µg/m³ as an 8-hour time-weighted average)
PLHCP – physician or other licensed health care professional
TWA – time-weighted average

Scope (29 C.F.R. § 1926.1153(a))

OSHA's silica standard for construction applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposures will remain below the AL of 25 µg/m³, calculated as an 8-hour TWA, under any foreseeable conditions. 29 C.F.R. § 1926.1153(a). The exception applies only where exposures below 25 µg/m³ as an 8-hour TWA are expected or achieved without using engineering or other controls. The exception is intended to ensure that the standard does not apply to employees whose work results in only minimal silica exposures. *See* 81 Fed. Reg. at 16706.

1. Has OSHA identified specific tasks that are likely to be outside the scope of the standard because they typically generate exposures below the AL of 25 µg/m³ as an 8-hour TWA under all foreseeable conditions?

Yes. When the following tasks are performed in isolation from other silica-generating tasks, they typically do not generate silica at or above the AL of 25 µg/m³ as an 8-hour TWA under any foreseeable conditions: mixing small amounts of mortar; mixing small amounts of concrete; mixing bagged, silica-free drywall compound; mixing bagged exterior insulation finishing

- Available for both construction and general industry/ maritime
- Provide responses to some of the most common stakeholder questions

OSHA® Occupational Safety and Health Administration

- Videos

- Fact Sheets

- Training PowerPoint Template

OSHA Occupational Safety and Health Administration

Other Guidance Materials

- NIOSH Silica Safety and Health Topics
  - https://www.cdc.gov/niosh/topics/silica/
- CPWR Silica Safe Website
  - http://www.silica-safe.org/
- Tool Manufacturers
  - Instructional Videos
  - Operator Manual

Silica:
Table 1 Request for Information

- RFI published in the Federal Register on August 15, 2019
- Agency requested information and comment on:
  - Additional controls for tasks currently on Table 1
  - Additional tasks to add
  - Allowing employers covered by GI standard to follow construction standard in additional circumstances

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Thank You!

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