



# OSHA REGIONAL NOTICE

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

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**DIRECTIVE NUMBER:** 2017-04 (CPL 04) | **EFFECTIVE DATE:** October 1, 2016

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**SUBJECT:** Regional Emphasis Program for Silica

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**REGIONAL IDENTIFIER:** Philadelphia Region III

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## ABSTRACT

**Purpose:** This instruction continues in Region III the National Emphasis Program (NEP) to reduce occupational exposures to Crystalline Silica.

**Scope:** This REP applies to all area offices in Region III.

**References:** [OSHA Instruction CPL 02-00-160, Field Operations Manual \(FOM\)](#)

[OSHA Instruction CPL 02-00-025, Scheduling Systems for Programmed Inspections](#)

[OSHA Instruction CPL 04-00-001, Procedures for Approval of Local Emphasis Programs \(LEP's\) and Experimental Programs](#)

[OSHA Instruction CPL 03-00-007, National Emphasis Program – Crystalline Silica](#)

[ADM 04-00-001 - OSHA Safety and Health Management System](#)

[TED 01-00-015 \[TED 1-0.15A\] - OSHA Technical Manual \(OTM\)](#)

[U.S. Department of Labor Strategic Plan Fiscal Years 2011-2016](#)

**Cancellations:** None

**State Impact:** None

**Action Offices:** Area Offices, Regional Office

**Originating Office:** Philadelphia Regional Office

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By and Under the Authority of

Richard Mendelson  
Regional Administrator

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I. PURPOSE. This REP is being continued to direct OSHA's Region III's field staff inspection efforts to address elevated silica exposures in the workplace, including General Industry (1910) and Construction (1926).

II. SCOPE. This REP applies to all area offices in Region III.

III. REFERENCES.

[OSHA Instruction CPL 02-00-160, Field Operations Manual \(FOM\)](#)

[OSHA Instruction CPL 02-00-025, Scheduling Systems for Programmed Inspections](#)

[OSHA Instruction CPL 04-00-001, Procedures for Approval of Local Emphasis Programs \(LEP's\) and Experimental Programs](#)

[OSHA Instruction CPL 03-00-007, National Emphasis Program – Crystalline Silica](#)

[ADM 04-00-001 - OSHA Safety and Health Management System](#)

[TED 01-00-015 \[TED 1-0.15A\] - OSHA Technical Manual \(OTM\)](#)

IV. EXPIRATION. This instruction expires September 30, 2017.

V. ACTION. OSHA personnel shall follow the procedures contained in this instruction when conducting outreach and enforcement activities. Area Directors will complete evaluation of the REP annually.

VI. BACKGROUND. Crystalline silica is an important industrial material, and occupational exposure occurs in a variety of workplace settings, including mining, manufacturing, construction, maritime, and agriculture. Processes associated historically with high rates of silicosis include sandblasting, sand-casting foundry operations, mining, tunneling, cement cutting and demolition, masonry work, and granite cutting.

Reducing and ultimately eliminating the workplace incidence of silicosis has been a primary goal of the Agency since its inception. In 1972, OSHA issued guidelines for conducting inspections in workplaces with significant crystalline silica exposure. In the early 1980s, the Agency placed a special emphasis on the prevention of silicosis in foundry personnel, and in 1996 OSHA implemented a Special Emphasis Program (SEP) to reduce the workplace incidence of silicosis.

The 1994 Government Performance and Results Act (GPRA) mandates that federal agencies improve performance and devise a system for measuring results. To comply with the provisions of GPRA, OSHA developed a Strategic Plan for improving the safety and health of all employees. In 1998 and again in 2003, under the Strategic Plan, OSHA identified crystalline silica as one of the focused hazards and in 2010 the DOL Strategic Plan targeting “illnesses in General Industry and Construction.” The [2011-2016](#)

Strategic Plan indicates that OSHA will target high risk hazards such as crystalline silica.

This REP is being implemented to direct OSHA's Region III's field staff inspection efforts to address elevated silica exposures in the workplace, including General Industry (1910) and Construction (1926). These efforts meet the Strategic Plan goal of reducing silicosis set forth by the Agency.

OSHA is proposing a new standard be adopted to address the hazards of crystalline silica. The proposed rule is the result of extensive review of scientific evidence relating to the health risks of exposure to respirable crystalline silica, analysis of the diverse industries where worker exposure to crystalline silica occurs, and robust outreach efforts to affected stakeholders.

## VII. PROGRAM PROCEDURES.

### A. Inspection Procedures:

All inspections **shall** be conducted in accordance with [CPL 03-00-007 National Emphasis Program – Crystalline Silica](#) paragraph XI.B entitled **Inspection Procedures and the requirements of this Regional Emphasis Program**. Appendix D (Appendix H in NEP) contains a checklist that summarizes the information to be documented during a silica-related inspection. The checklist may be used by the CSHO to ensure proper coverage of the essential elements of a silica-related inspection. A detailed account of all findings shall be documented in the case file.

### B. Exposure Monitoring:

Sampling will normally be performed on all inspections under this REP. However, if the facility has adequate, recent (no more than 1 year old) representative sampling performed by an On-Site Consultation Service that shows no over-exposures for all processes that have a potential for employee exposures, the CSHO may in his or her professional judgment determine that sampling is not necessary. The case file will be fully documented why no OSHA sampling is conducted. For the purposes of this REP “representative sampling” shall be defined as sampling that: (1) includes all exposed job descriptions; (2) was conducted on all shifts or on the heaviest production shifts; and (3) includes processes and a work environment that have not changed since the representative sampling.

If the company has sampling performed by an On-Site Consultation Service, the results must be included and documented in the file. Information should be documented from the company and supported through employee interviews to confirm completion of sampling by the employer. When employee sampling is conducted, CSHOs will perform self-sampling in accordance with ADM 04-00-001, OSHA Safety and Health Management System, Ch. 27: Policies and Procedures for Field Staff Exposure Monitoring.

C. Recording in OIS:

As required by the Crystalline Silica NEP, all inspections (SST, complaint, etc.) conducted in the industries listed in Appendix B, where the compliance officer determines that there is a potential employee overexposure to silica; the inspection shall be counted under the NEP, and coded under the REP as a strategic plan silica inspection. In addition, forms for all inspections conducted in establishments that are covered by this REP shall be coded as Regional Emphasis Program inspections as "SILICA."

D. Follow-up inspections:

Where citations are issued for overexposure to crystalline silica, follow-up site visits must be conducted to determine whether the company is eliminating silica exposures or reducing exposures below the PEL. **Once the necessary abatement verification is received, the Area Office will send a copy of the relevant information in the case file (Inspection Report, Narrative and Violation Worksheet for overexposures to silica; and all Engineering Controls used to control silica exposure) to the National Office - Directorate of Enforcement Programs.**

For those employers where follow-ups cannot be done, (i.e., construction sites or temporary abrasive blasting operations) the Area Office should request that the employer provide written updates documenting the progress of their abatement efforts per 1903.19. Where possible the Area Office may include a stipulation in a Settlement Agreement to provide a list of jobs sites for 6 months where relevant work is performed.

VIII. SCHEDULING OF INSPECTIONS.

A. Site Selection:

The Area Director shall compile a master list of establishments to be inspected within the jurisdiction of the Area Office from the list of industries where over exposures have been documented in Region III (Appendix A) and the list of industries with a potential for overexposure to crystalline silica (Appendix B), pursuant to the NEP, Section XI.A.2. The Area Director will identify all establishments within the SIC and NAICS codes listed in Appendices A and B pursuant to the NEP, Section XI.A.2.b. Once the master list is developed, the establishments will be placed into alphabetical order and appropriate deletions will be made following the guidelines in CPL 02-00-025, paragraph B.1.b.(1)(b)(6) and the NEP, paragraph XI.A.2.c.

B. Cycle Development:

Each establishment on the corrected list will be assigned a sequential number, starting at the top of the list with number one. A random number table will then be applied to create the first inspection cycle of five or more establishments. Subsequent cycles

will be created in the same way until the expiration of the REP or until all establishments on the list have been assigned to a cycle. Cycles may be created all at once or as needed, and need not be of the same size. Per the NEP, paragraph XI.A.2.d. whenever an office becomes aware of a previously unknown establishment in one of the identified SICs/NAICSS, that establishment shall be added to the master list for inclusion in the next inspection cycle.

C. Inspection Scheduling:

Establishments may be selected from the specified cycle for inspection in any order that makes efficient use of available resources. Each inspection cycle must be completed before another cycle is started except as allowed by CPL 02-00-025, paragraph B.1.b.(1)(d). It is anticipated that safety hazards may be identified during the course of these inspections and the CSHO shall make referrals as appropriate to address the safety hazards noted in accordance with the Field Operations Manual.

IX. OUTREACH:

During the course of this REP the Area Director will ensure an outreach program will continue during the enforcement phase of the program. Outreach activities will be directed to reach as many stake holders in the Area Office's jurisdiction as is practicable. The purpose of the outreach will be to inform interested parties of the existence, purpose and objectives of this regional emphasis program as well as promote employer knowledge and employee awareness of the hazards and acceptable methods of abatement to prevent illness and injuries. The method of outreach is at the Area Director's discretion and can consist of one or more of the following components:

1. Broadcast mail-outs or program information.
2. Stakeholder meetings.
3. Targeted training sessions.
4. Presentations to the affected group(s).
5. Media press release or e-blast

Suggested outreach materials and targeted audiences are referenced in Paragraph XI.C. of the NEP.

X. EVALUATION:

A. Area Director's Responsibility: The Area Director implementing this Regional *Emphasis* Program shall submit to Enforcement Programs by October 31, of each year an evaluation report in accordance with OSHA Instruction CPL04-00-001, procedures for Approval of local Emphasis Programs (LEP's) and experimental programs. OSHA Instruction CPL 04-00-001, Procedures for Approval of Local Emphasis Programs (LEP's) and Experimental Programs that shall include the following elements.

1. The goal of the program

2. The Area Director's opinion of how effective the program was in meeting its goal.
  3. Data and information to support the conclusions stated in (2) above including:
    - a. enforcement statistics;
    - b. serious hazards related to crystalline silica exposure eliminated;
    - c. number of times engineering controls cited;
    - d. number of violations cited relating to overexposures to crystalline silica.
  4. Statement of whether the program should be continued, accompanied by a brief rationale.
  5. Description of any legal issues that arose which would necessitate a review by the Solicitor before renewal of the program could be approved.
  6. Any other comments or recommendations, including findings that might have an impact on how OSHA conducts the REP
- B. Regional Office Responsibility: Based on the Area Director's evaluation and any other pertinent information, Enforcement Programs will prepare an evaluation of this program for the Regional Administrator's submission to the national office as required by current instructions.

DISTRIBUTION: All Area Offices  
Enforcement Programs  
Regional Solicitor  
Cooperative and State Programs  
Administrative Programs

**Appendix A (REP)**

**Industries with Potential Overexposure to Crystalline Silica**

The list is based on a review of the Region III Sampling Database for the past twelve fiscal years. This table is intended to show the range of industries in which overexposures to crystalline silica have been documented in Region III, but should not be considered to be an exhaustive listing.

<b>Industries with Crystalline Silica Exposure, 2000-2012</b>		
<b>1987 SIC Code<sup>1</sup></b>	<b>1987 SIC Industry Title</b>	<b>2002 NAICS Code<sup>2</sup></b>
1521	General Contractors-Single Family Houses	236115, 236118
1522	General Contractors-Residential Buildings Other Than Single-Family	236115, 236118
1541	General Contractors-Industrial Buildings and Warehouses	236210, 236220
1611	Highway and Street Construction, Except Elevated Highways	237310
1622	Bridge, Tunnel, and Elevated Highway Construction	237310, 237990
1623	Water, Sewer, Pipeline, and Communications and Power Line Construction	237110, 237120, 237130
1629	Heavy Construction, n.e.c.	237110, 237120, 237130, 237990
1721	Painting and Paper Hanging*	237310, 238320
1741	Masonry, Stone Setting, and Other Stone Work	238140
1742	Plastering, Drywall, Acoustical, and Insulation Work	238310
1761	Roofing, Siding, and Sheet Metal Work	238160, 238170, 238390
1771	Concrete Work	238110, 238140, 238990
1794	Excavation Work	238910
1795	Wrecking and Demolition Work	238910
1799	Special Trade Contractors, n.e.c.	236220, 237990, 238150, 238190, 238290
2434	Kitchen furniture and counter tops	337110,337127
3271	Concrete Block and Brick	327331
3272	Concrete Products, Except Block and Bricks	327332, 327390, 327999
3273	Ready-Mixed Concrete	327320
3281	Cut Stone and Stone Products	327991
3291	Abrasive Products	327910, 332999
3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills	324199, 331111, 331221
3321	Gray and Ductile Iron Foundries	331511
3322	Malleable Iron Foundries	331511

3325	Steel Foundries, n.e.c.	331513
3334	Primary Production of Aluminum	331312
3365	Aluminum Foundries	331524
3366	Copper Foundries	331525
3369	Nonferrous Foundries, Except Aluminum and Copper	331528
3431	Enameled Iron and Metal Sanitary Ware	332998
3441	Fabricated and Structural Metal*	332312
3443	Fabricated Plate Work (Boiler Shops)*	332313, 332410, 332420
3444	Sheet Metal Work*	332321, 332322, 332439, 333415
3471	Electroplating, Polishing, Anodizing, and Coloring*	332813
3479	Coating, Engraving, and Allied Services, n.e.c.*	332812, 339911, 339912, 339914
3531	Construction Machinery and Equipment*	333120, 333923, 336510
3599	Industrial and Commercial Machinery and Equipment*	332710, 332813, 332999, 333319, 333999, 334519, 336399
3715	Truck Trailers*	336212
3731	Ship Building and Repairing	336611
5032	Brick, Stone, and Related Construction Materials <sup>3</sup>	423320, 425110, 425120, 444110, 444190,

\*Crystalline silica exposure primarily from abrasive blasting operations

<sup>1</sup> *Standard Industrial Classification Manual*, 1987. Executive Office of the President, Office of Management and Budget.

<sup>2</sup> *North American Industry Classification System*, United States, 2002. Executive Office of the President, Office of Management and Budget.

<sup>3</sup> This industry may be subject to OSHA Instruction CPL 02-00-051 - Enforcement Exemptions and Limitations under the Appropriations Act (or a subsequent version).

Source: Federal OSHA Inspection Data for Silica (Code 9010-Quartz) compiled in the OSHA Integrated Management Information System (IMIS), from 01/01/2000 through 03/31/2012.

## Appendix B (NEP)

### Industries with Potential Overexposure to Crystalline Silica

This appendix contains a list of industries in which employees may be exposed to elevated levels of crystalline silica. The list is based on a review of inspection data from OSHA's Integrated Management Information System (IMIS) for crystalline silica (quartz), for the period January 1996 through March 2007. This table is intended to show the range of industries in which crystalline silica exposure may occur, but should not be considered to be an exhaustive listing. Employee exposure to crystalline silica may occur in industries not listed here. Likewise, crystalline silica exposure does not occur in all establishments encompassed within these North American Industry Classification System (NAICS) or Standard Industrial Classification (SIC) codes.

<b>Industries with Crystalline Silica Exposure, 1996-2007</b>		
<b>1987 SIC Code<sup>1</sup></b>	<b>1987 SIC Industry Title</b>	<b>2002 NAICS Code<sup>2</sup></b>
1521	General Contractors-Single Family Houses	236115, 236118
1522	General Contractors-Residential Buildings Other Than Single-Family	236115, 236118
1541	General Contractors-Industrial Buildings and Warehouses	236210, 236220
1611	Highway and Street Construction, Except Elevated Highways	237310
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1629	Heavy Construction, n.e.c.	236210, 237110, 237120, 237130, 237990
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1741	Masonry, Stone Setting, and Other Stone Work	238140
1742	Plastering, Drywall, Acoustical, and Insulation Work	238310
1761	Roofing, Siding, and Sheet Metal Work	238160, 238170, 238390
1771	Concrete Work	238110, 238140, 238990
1794	Excavation Work	238910
1795	Wrecking and Demolition Work	238910
1799	Special Trade Contractors, n.e.c.	236220, 237990, 238150, 238190, 238290
3251	Brick and Structural Clay Tile	327121, 327331
3253	Ceramic Wall and Floor Tile	327122
3255	Clay Refractories	327124
3261	Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories	327111
3262	Vitreous China Table and Kitchen Articles	327112
3264	Porcelain Electrical Supplies	327113
3269	Pottery Products, n.e.c.	327112

3271	Concrete Block and Brick	327331
3272	Concrete Products, Except Block and Bricks	327332, 327390, 32799
3273	Ready-Mixed Concrete	327320
3281	Cut Stone and Stone Products	327991
3291	Abrasive Products	327910, 332999
3299	Nonmetallic Mineral Products, n.e.c.	327112, 327420, 327999
3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills	324199, 331111, 331221
3321	Gray and Ductile Iron Foundries	331511
3322	Malleable Iron Foundries	331511
3325	Steel Foundries, n.e.c.	331513
3334	Primary Production of Aluminum	331312
3365	Aluminum Foundries	331524
3366	Copper Foundries	331525
3369	Nonferrous Foundries, Except Aluminum and Copper	331528
3431	Enameled Iron and Metal Sanitary Ware	332998
3441	Fabricated and Structural Metal*	332312
3443	Fabricated Plate Work (Boiler Shops)*	332313, 332410, 332420
3444	Sheet Metal Work*	332321, 332322, 332439, 333415
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3479	Coating, Engraving, and Allied Services, n.e.c.*	332812, 339911, 339912, 339914
3531	Construction Machinery and Equipment*	333120, 333923, 336510
3599	Industrial and Commercial Machinery and Equipment*	332710, 332813, 332999, 333319, 333999, 334519, 336399
3715	Truck Trailers*	336212
5032	Brick, Stone, and Related Construction Materials <sup>3</sup>	423320, 425110, 425120, 444190
7532	Top, Body, and Upholstery Repair Shops and Paint Shops*	811121

\*Crystalline silica exposure primarily from abrasive blasting operations

<sup>1</sup> *Standard Industrial Classification Manual*, 1987. Executive Office of the President, Office of Management and Budget.

<sup>2</sup> *North American Industry Classification System*, United States, 2002. Executive Office of the President, Office of Management and Budget.

<sup>3</sup> This industry may be subject to OSHA Instruction CPL 02-00-051 - Enforcement Exemptions and Limitations under the Appropriations Act (or a subsequent version).

Source: Federal OSHA Inspection Data for Silica (Code 9010-Quartz) compiled in the OSHA Integrated Management Information System (IMIS), from 01/01/1996 through 03/31/2007.

## APPENDIX C

### Links to Reference Documents

CPL 02-00-148

OSHA Instruction: Field Operations Manual (FOM)

[https://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_02-00-148.pdf](https://www.osha.gov/OshDoc/Directive_pdf/CPL_02-00-148.pdf)

CPL 03-00-007

OSHA Instruction: National Emphasis Program-Crystalline Silica

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=3790](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=3790)

TED 01-00-015

OSHA Technical Manual (OTM)

[https://www.osha.gov/dts/osta/otm/otm\\_toc.html](https://www.osha.gov/dts/osta/otm/otm_toc.html)

CPL 02-00-025

Scheduling Systems for Programmed Inspections

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=1594](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1594)

CPL 04-00-001

Procedures for Approval of Local Emphasis Programs (LEP's) and Experimental Programs

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=2252](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=2252)

ADM 04-00-001

OSHA Safety and Health Management System

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=4938](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=4938)

U.S. Department of Labor Strategic Plan Fiscal Years 2011-2016

<http://www.dol.gov/sec/stratplan/StrategicPlan.pdf>

## APPENDIX D

### CSHO Checklist for Conducting Silica-Related Inspections

This non-mandatory checklist is intended as a quick reference tool for Compliance Safety and Health Officers (CSHOs) conducting silica-related inspections. The CSHO may wish to review the checklist before completing the inspection to make sure that none of the essential elements have been overlooked. The checklist addresses all of the topics discussed in Section XI(B), Inspection Procedures, of the NEP.

- Employee Exposure Monitoring
  - Sample for Respirable Dust/Silica
  - Leak Test Filters/Cyclones
  - Bulk Samples of Settled Dust
  - Employer's Monitoring Records
  - Other \_\_\_\_\_
- Engineering and Work Practice Controls
  - Location of Employees
  - Ventilation
  - Wet Methods
  - Other \_\_\_\_\_
- Respiratory Protection
  - Written Program
  - Cartridge Selection and Change-out Schedule
  - Medical and Fit Test Records
  - Breathing Air Quality and Use
  - Other \_\_\_\_\_
- Hazard Communication
  - Written Program
  - MSDSs
  - Training
  - Bulk Samples of Products
  - Other \_\_\_\_\_
- Symptoms of Silicosis in Workplace
  - Survey/Interview Employees
  - Employees Obtaining Medical Evaluations
  - Other \_\_\_\_\_
- Medical Surveillance
  - Employer Aware of Silicosis Risk
  - Employer Identifying Possible Cases
  - Employer Referring Cases to Physician
  - Other \_\_\_\_\_
- Housekeeping and Hygiene Practices
  - Facility Cleanliness
  - Clean-up Methods (Compressed Air, Dry Sweeping?)
  - Change Rooms/PPE Storage
  - Separate Break Areas
  - Other \_\_\_\_\_
- Employee Exposure and Medical Records
  - Employer Monitoring and Medical Records
  - Employee Access and Confidentiality
  - Other \_\_\_\_\_
- Abrasive Blasting (on-site or off-site)
  - Sample for Silica and Metals (including Bystanders)
  - Sample for Noise
  - Ventilation and Dust Containment
  - PPE and Respirators
  - Carbon Monoxide Alarm on Respirator
  - Manual Control of Blast Nozzle Operating Valve
  - Electrical Grounding
  - Pressure Range (90-120 psi)
  - Heat Stress
  - Other \_\_\_\_\_