DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910, 1915, and 1926
[Docket No. OSHA–2010–0034]
RIN 1218–AB70

Occupational Exposure to Respirable Crystalline Silica; Correction

AGENCY: Occupational Safety and Health Administration, Department of Labor.

ACTION: Final rule; correcting amendment.

SUMMARY: OSHA published a final rule on occupational exposure to respirable crystalline silica on March 25, 2016 which became effective on June 23, 2016. This document corrects typographical errors in the final rule by revising these sections.

DATES: Effective September 1, 2016.

FOR FURTHER INFORMATION CONTACT: Annette Iannucci, Directorate of Standards and Guidance, Room N–3718, OSHA, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210; telephone (202) 693–1950; email iannucci.annette@dol.gov.

SUPPLEMENTARY INFORMATION: On March 25, 2016, OSHA published a final rule entitled Occupational Exposure to Respirable Crystalline Silica (81 FR 61285–16890). The final rule retained the preceding permissible exposure limits (PELs) for respirable crystalline silica in general industry (29 CFR 1910.1000, Table Z–3), shipyards (29 CFR 1915.1000, Table Z), and construction (29 CFR 1926.55, appendix A), and added footnotes to make clear that these PELs apply to any sectors or operations where the new PEL of 50 µg/m³ is not in effect. The preceding PELs apply to operations that are not covered by the new standards, such as the processing of sorptive clays. The preceding PELs are also applicable during the time between publication of the silica rule and the dates established for compliance with the rule, as well as in the event of regulatory delay, a stay, or partial or full invalidation by the Court.

This document corrects typographical errors in the formulas for the preceding PELs, so that they will appear as they did prior to publication of the final rule.

List of Subjects in 29 CFR Parts 1910, 1915, and 1926

Cancer, Chemicals, Cristobalite, Crystalline silica, Hazardous substances, Health, Lung diseases, Occupational safety and health, Quartz, Reporting and recordkeeping requirements, Silica, Silicosis, Tridymite.

Authority and Signature

This document was prepared under the direction of David Michaels, Ph.D., MPH, Assistant Secretary of Labor for Occupational Safety and Health. It is issued under the following authorities: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); section 107 of the Contract Work Hours and Safety Standards Act (the Construction Safety Act) (40 U.S.C. 3704); section 41 of the Longshore and Harbor Worker’s Compensation Act (33 U.S.C. 941); Secretary of Labor’s Order 1–2012 (77 FR 3912 (1/25/2012)); and 29 CFR part 1911.

Signed at Washington, DC, on August 5, 2016.

David Michaels,
Assistant Secretary of Labor for Occupational Safety and Health.

Accordingly, for the reasons set forth in the preamble above, the Occupational Safety and Health Administration is amending 29 CFR parts 1910, 1915, and 1926 as follows:

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

1. The authority citation for part 1910 continues to read as follows:


2. In §1910.1000, in Table Z–3, revise the entries for “Silica: Crystalline Quartz (Respirable)”, “Silica: Crystalline Cristobalite”, and “Silica: Crystalline Tridymite” to read as follows:

§1910.1000 Air contaminants.

* * * * *

<table>
<thead>
<tr>
<th>Substance</th>
<th>mppcf a</th>
<th>mg/m 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica: Crystalline Quartz (Respirable)</td>
<td>250 b</td>
<td>10 mg/m 3 a</td>
</tr>
<tr>
<td>Cristobalite: Use ½ the value calculated from the count or mass formulae for quartz. f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tridymite: Use ½ the value calculated from the formula for quartz. f</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * * * *

* * * * *

a Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

f The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

* * * * *

b Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:

<table>
<thead>
<tr>
<th>Aerodynamic diameter (unit density sphere)</th>
<th>Percent passing selector</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>3.5</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>
The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m³ in the table for coal dust is 4.5 mg/m³.

This standard applies to any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or is otherwise not in effect.

PART 1915—OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR SHIPYARD EMPLOYMENT

3. The authority citation for part 1915 continues to read as follows:


4. In §1915.1000, amend Table Z by:

a. Revising the entries for “Silica, crystalline, respirable dust, cristobalite”, “Silica, crystalline, respirable dust, quartz”, “Silica, crystalline, respirable dust, tripoli (as quartz)”, and “Silica, crystalline, respirable dust, tridymite”; and

b. Under the “MINERAL DUSTS” heading of the table, revising the entry for “Silica: Crystalline Quartz”.

The revisions read as follows:

§1915.1000 Air contaminants.

### TABLE Z—SHIPYARDS

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>ppm</th>
<th>mg/m³</th>
<th>Skin designation</th>
</tr>
</thead>
</table>

#### MINERAL DUSTS

<table>
<thead>
<tr>
<th>Substance</th>
<th>mppcf (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA: Crystalline</td>
<td>250 (h)</td>
</tr>
</tbody>
</table>

Quartz. Threshold Limit calculated from the formula (g) % SiO₂ + 5

* * * * *


Section 1926.65 also issued under section 126 of the Superfund Amendments and Reauthorization Act of 1986, as amended (reprinted at 29 U.S.C.A. 655 Note), and 5 U.S.C. 553.

6. In §1926.55, in appendix A, in the table titled “Threshold Limit Values of Airborne Contaminants for Construction”:

a. Revise the entries for “Silica, crystalline, respirable dust, cristobalite”, “Silica, crystalline, respirable dust, quartz”, “Silica, crystalline, respirable dust, tripoli (as quartz)”, and “Silica, crystalline, respirable dust, tridymite”; and

b. Under the “MINERAL DUSTS” heading of the table, revise the entry for “Silica: Crystalline Quartz”.

The revisions read as follows:

§1926.55 Gases, vapors, fumes, dusts, and mists.

* * * * *

Appendix A to §1926.55—1970 American Conference of Governmental Industrial Hygienists’ Threshold Limit Values of Airborne Contaminants
### Mineral Dusts

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>ppm</th>
<th>mg/m³</th>
<th>Skin designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, crystalline, respirable dust</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Cristobalite; see 1926.1153</td>
<td>14464–46–1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz; see 1926.1153</td>
<td>14808–60–7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tripoli (as quartz); see 1926.1153</td>
<td>1317–95–9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tridymite; see 1926.1153</td>
<td>15468–32–3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mineral Dusts**

- **SILICA:**
  - Crystalline ..................................... 250(k)

  - **Quartz.** Threshold Limit calculated from the formula (p) % SiO₂ + 5
    - Parts of vapor or gas per million parts of contaminated air by volume at 25 °C and 760 torr.
    - Milligrams of substance per cubic meter of air. When entry is in this column only, the value is exact; when listed with a ppm entry, it is approximate.

**Notes:**

- See Mineral Dusts table for the exposure limit for any operations or sectors where the exposure limit in § 1926.1153 is stayed or is otherwise not in effect.
- The PELs are 8-hour TWA unless otherwise noted; a (C) designation denotes a ceiling limit.
- a Parts of vapor or gas per million parts of contaminated air by volume at 25 °C and 760 torr.
- b Milligrams of substance per cubic meter of air. When entry is in this column only, the value is exact; when listed with a ppm entry, it is approximate.
- The CAS number is for information only. Enforcement is based on the substance name. For an entry covering more than one metal compound, measured as the metal, the CAS number for the metal is given—not CAS numbers for the individual compounds.
- * This standard applies to any operations or sectors for which the respirable crystalline silica standard, 1926.1153, is stayed or otherwise is not in effect.
- * See Mineral Dusts table for the exposure limit for any operations or sectors where the exposure limit in § 1926.1153 is stayed or is otherwise not in effect.

**SUMMARY:** The Environmental Protection Agency (EPA) is approving a State Implementation Plan (SIP) revision submitted by the State of Connecticut on November 19, 2012. We are approving Connecticut’s request to remove two regulations from its SIP that regulate “open burning” and “portable fuel container spillage control.” In place of the open burning regulation, we are approving into the Connecticut SIP a Connecticut statute that controls open burning. We are also approving a definition of “brush,” which was included in a December 14, 2015 SIP submittal by Connecticut to meet infrastructure requirements of the Clean Air Act for the 2012 fine particle (PM2.5) National Ambient Air Quality Standards (NAAQS). The requirements in the Connecticut portable fuel container regulation have been superseded by federal portable fuel container requirements. This action is being taken in accordance with the Clean Air Act.

**DATES:** This direct final rule will be effective October 31, 2016, unless EPA receives adverse comments by October 3, 2016. If adverse comments are received, EPA will publish a timely withdrawal of the direct final rule in the Federal Register informing the public that the rule will not take effect.

**ADDRESSES:** Submit your comments, identified by Docket ID Number EPA–R01–OAR–2015–0471 by one of the following methods:

1. [http://www.regulations.gov](http://www.regulations.gov)
2. Email: arnold.anne@epa.gov.
3. Fax: (617) 918–0047.

EPA’s policy is that all comments received will be included in the public docket without change and may be made available online at [http://www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through [http://www.regulations.gov](http://www.regulations.gov), or email, information that you consider to be CBI or otherwise protected. The [http://www.regulations.gov](http://www.regulations.gov) Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through [http://www.regulations.gov](http://www.regulations.gov) or otherwise protected. The [http://www.regulations.gov](http://www.regulations.gov) Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through [http://www.regulations.gov](http://www.regulations.gov) or otherwise protected. The [http://www.regulations.gov](http://www.regulations.gov) Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through [http://www.regulations.gov](http://www.regulations.gov) or otherwise protected. The [http://www.regulations.gov](http://www.regulations.gov) Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment.

**Electronic Files:**

Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

**Docket:** All documents in the electronic docket are listed in the [http://www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is