



Exempt Action Final Regulation Agency Background Document

Agency name	Virginia Department of Labor and Industry/Safety and Health Codes Board
Virginia Administrative Code (VAC) citation(s)	16VAC25-90-1910.1024
Regulation title(s)	Occupational Exposure to Beryllium for General Industry
Action title	Revising the Beryllium Standard for General Industry; Direct Final Rule (DFR); and Confirmation of Effective Date
Final agency action date	November 8, 2018
Date this document prepared	November 14, 2018

While a regulatory action may be exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the *Code of Virginia*, the agency is still encouraged to provide information to the public on the Regulatory Town Hall using this form. However, the agency may still be required to comply with the Virginia Register Act, Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

On May 7, 2018, federal OSHA published a direct final rule (DFR) that amended the text of the Beryllium standard for General Industry. The DFR applies to general industry processes, operations, and other areas where workers are at risk of exposure to materials containing trace amounts of beryllium, less than 0.1 percent of beryllium by weight. The DFR adjusts the regulatory text of the general industry beryllium standard to clarify OSHA's intent with respect to certain terms in the initial standard, including

the following revised definitions:

- Beryllium Work Area (BWA),
- emergency, and
- dermal contact and beryllium contamination

It also clarified OSHA's intent with respect to provisions for disposal and recycling and with respect to provisions that OSHA intends to apply only where skin can be exposed to materials containing at least 0.1% beryllium by weight.

The DFR adjusted the regulatory text of the general industry beryllium standard to clarify that OSHA does not intend for requirements that primarily address dermal contact to apply in processes, operations, or areas involving only materials containing less than 0.1% beryllium by weight. These clarifications are made through changes to the definition of beryllium work area; the addition of definitions of dermal contact, beryllium-contaminated, and contaminated with beryllium; clarification of certain hygiene provisions with respect to beryllium contamination; and the clarifications to provisions for disposal and recycling.

In addition, because under these changes it is possible to have a regulated area that is not a beryllium work area, this DFR makes changes to certain housekeeping provisions to ensure they apply in all regulated areas.

Finally, this DFR also includes a change to the definition of "emergency", adding detail to the definition so as to clarify the nature of the circumstances OSHA intends to be considered an "emergency" for the purposes of the standard.

In an effort to clarify OSHA's intent, the DFR clarifies the following definitions in the beryllium standard for general industry:

a) "**Beryllium work area**" means any work area:

- 1) containing a process or operation that can release beryllium and that involves materials that contain at least 0.1% beryllium by weight; and
- 2) where employees are, or can reasonably be expected to be, exposed to airborne beryllium at any level or where there is the potential for dermal contact with beryllium.

The DFR's clarification to the definition of "beryllium work area" means that it is possible for a work area to be a regulated area, but not a beryllium work area. This would occur when processes that involve only materials containing less than 0.1% beryllium by weight create airborne beryllium exposures at or above the TWA PEL or STEL.

Housekeeping (paragraph (j)) requirements continue to apply in regulated areas, even if the processes or operations in these areas involve materials with only trace beryllium. Operations or processes involving trace beryllium materials must generate extremely high dust levels in order to exceed the TWA PEL or STEL. Following the housekeeping methods required by paragraph (j) will

help to protect workers against resuspension of surface beryllium accumulations from extremely dusty operations and limit workers' airborne exposure to beryllium.

This DFR also rearranges the regulatory text of paragraph (f)(2) to make clear that the hierarchy of controls will continue to apply in regulated areas that are not beryllium work areas.

- b) **"Emergency"** means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or does result in an uncontrolled and unintended release of airborne beryllium that presents a significant hazard. (1910.1024 (b))

This change clarifies the circumstances under which the provisions associated with emergencies should apply, including the requirements that employers provide and ensure employee use of respirators and that employers provide medical surveillance to employees exposed in an emergency.

- c) **"Dermal Contact"** with beryllium means skin exposure to:
- 1) soluble beryllium compounds containing beryllium in concentrations greater than or equal to 0.1 percent by weight;
 - 2) solutions containing beryllium in concentrations greater than or equal to 0.1 percent by weight; or
 - 3) dust, fumes, or mists containing beryllium in concentrations greater than or equal to 0.1 percent by weight.

The definition clarifies that paragraph (h)(1)(ii), which requires an employer to provide and ensure the use of personal protective clothing and equipment where there is a reasonable expectation of dermal contact with beryllium, applies only where contact may occur with materials containing at least 0.1% beryllium by weight.

This definition also clarifies that the requirements related to dermal contact in the written exposure control plan, washing facilities, medical examinations, and training provisions only apply where contact may occur with materials containing at least 0.1% beryllium by weight.

- d) **"Beryllium Contamination"** means contaminated with dust, fumes, mists, or solutions containing beryllium in concentrations greater than or equal to 0.1 percent by weight. (See §1910.1024 (j)(2)(iii), (j)(2)(iv))

The definition of "Beryllium Contamination" further clarifies OSHA's intent that the standard's requirements, aimed at reducing the effect of dermal contact with beryllium, should not apply to areas where there are no processes or operations involving materials containing at least 0.1% beryllium by weight.

The DFR adds the terms to certain provisions in the standard's requirements for hygiene areas and disposal and recycling. The affected provisions, which apply where clothing, hair, skin, or work surfaces are beryllium-contaminated, do not apply where the contaminating material contains less than 0.1% beryllium by weight. (See paragraphs (h)(2)(i) – (iv))

This DFR also added the term, "beryllium-contaminated" to certain requirements pertaining to eating and drinking areas to clarify that hygiene requirements in these areas apply only where materials containing more than 0.1% beryllium by weight may contaminate such areas.

This DFR also clarifies OSHA's intent with respect to provisions for disposal and recycling and with respect to provisions that OSHA intends to apply only where skin can be exposed to materials containing at least 0.1% beryllium by weight. (§1910.1024 (j)(3)) This DFR limits previous requirements for disposal of materials contaminated by beryllium to "materials that contain beryllium in concentrations of 0.1 percent by weight or more or are contaminated with beryllium".

This DFR does not affect the construction and shipyard standards which will be addressed in a separate rulemaking.

In the May 7, 2018, Beryllium Standard for General Industry, DFR, federal OSHA stated that the DFR would become effective on July 6, 2018, unless one or more significant adverse comments were submitted by June 6, 2018 (83 FR 19936). Since federal OSHA did not receive significant adverse comments on its DFR, on July 3, 2018, federal OSHA confirmed the effective date of July 6, 2018 for its General Industry Beryllium DFR (83 FR 31045) for jurisdictions under federal OSHA control.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

On November 8, 2018, the Safety and Health Codes Board adopted federal OSHA's Direct Final Rule on Revising the Beryllium Standard for General Industry, §1910.1024, and the Confirmation of the Effective Date of the Direct Final Rule, with an effective date of February 15, 2019.

To access the Direct Final Rule for Revising the Beryllium Standard for General Industry, §1910.1024 and the Confirmation of Effective Date of the Direct Final Rule, please click on the link below:

<https://www.federalregister.gov/documents/2018/05/07/2018-09306/revising-the-beryllium-standard-for-general-industry>

<https://www.osha.gov/sites/default/files/laws-regs/federalregister/2018-07-03.pdf>

**Revising the Beryllium Standard for General Industry, §1910.1024; Direct Final Rule; and
Confirmation of Effective Date of the Direct Final Rule**

As Adopted by the
Safety and Health Codes Board

Date: _____



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective Date: _____

16VAC25-90-1910.1024, Beryllium, §1910.1024

When the regulations, as set forth in the Direct Final Rule on Revising the Beryllium Standard for General Industry, § 1910.1024, and the Confirmation of the Effective date of the Direct Final Rule, are applied to the Commissioner of the Department of Labor and Industry and/or to Virginia employers, the following federal terms shall be considered to read as below:

Federal Terms

VOSH Equivalent

29 CFR

VOSH Standard

Assistant Secretary

Commissioner of Labor and Industry

Agency

Department

July 6, 2018

February 15, 2019

**PART 1910—OCCUPATIONAL SAFETY
AND HEALTH STANDARDS**

**Subpart Z—Toxic and Hazardous
Substances**

- 2. Amend § 1910.1024 as follows:

- a. Revise the definition of "Beryllium work area" in paragraph (b);
- b. Add definitions for "Contaminated with beryllium and beryllium-contaminated" and "Dermal contact with beryllium" in alphabetical order in paragraph (b);
- c. Revise the definition of "Emergency" in paragraph (b);
- d. Revise paragraph (f)(2);
- e. Revise paragraph (h)(3)(ii);
- f. Revise paragraphs (i)(3)(i)(B), (i)(3)(ii)(B), (i)(4)(i) and (ii); and
- g. Revise paragraphs (j)(1)(i), (j)(2)(i) and (ii), and (j)(3).

The revisions and additions read as follows:

§ 1910.1024 Beryllium.

(b) * * *
Beryllium work area means any work area:

- (i) Containing a process or operation that can release beryllium and that involves material that contains at least 0.1 percent beryllium by weight; and
- (ii) Where employees are, or can reasonably be expected to be, exposed to airborne beryllium at any level or where there is the potential for dermal contact with beryllium.

* * *
Contaminated with beryllium and beryllium-contaminated mean contaminated with dust, fumes, mists, or solutions containing beryllium in concentrations greater than or equal to 0.1 percent by weight.

Dermal contact with beryllium means skin exposure to:

- (i) Soluble beryllium compounds containing beryllium in concentrations greater than or equal to 0.1 percent by weight;
- (ii) Solutions containing beryllium in concentrations greater than or equal to 0.1 percent by weight; or
- (iii) Dust, fumes, or mists containing beryllium in concentrations greater than or equal to 0.1 percent by weight.

* * *
Emergency means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or does result in an uncontrolled and unintended release of airborne beryllium that presents a significant hazard.

(f) * * *
(2) *Engineering and work practice controls.* (i) The employer must use engineering and work practice controls to reduce and maintain employee airborne exposure to beryllium to or below the PEL and STEL, unless the

employer can demonstrate that such controls are not feasible. Wherever the employer demonstrates that it is not feasible to reduce airborne exposure to or below the PELs with engineering and work practice controls, the employer must implement and maintain engineering and work practice controls to reduce airborne exposure to the lowest levels feasible and supplement these controls using respiratory protection in accordance with paragraph (g) of this standard.

(ii) For each operation in a beryllium work area that releases airborne beryllium, the employer must ensure that at least one of the following is in place to reduce airborne exposure:

- (A) Material and/or process substitution;
- (B) Isolation, such as ventilated partial or full enclosures;
- (C) Local exhaust ventilation, such as at the points of operation, material handling, and transfer; or
- (D) Process control, such as wet methods and automation.

(iii) An employer is exempt from using the controls listed in paragraph (f)(2)(ii) of this standard to the extent that:

- (A) The employer can establish that such controls are not feasible; or
- (B) The employer can demonstrate that airborne exposure is below the action level, using no fewer than two representative personal breathing zone samples taken at least 7 days apart, for each affected operation.

(h) * * *
(3) * * *
(i) The employer must ensure that beryllium is not removed from beryllium-contaminated personal protective clothing and equipment by blowing, shaking, or any other means that disperses beryllium into the air.

(i) * * *
(3) * * *
(i) * * *
(B) Employee's hair or body parts other than hands, face, and neck can reasonably be expected to become contaminated with beryllium.

(ii) * * *
(B) The employee's hair or body parts other than hands, face, and neck could reasonably have become contaminated with beryllium.

(4) * * *
(i) Beryllium-contaminated surfaces in eating and drinking areas are as free as practicable of beryllium;
(ii) No employees enter any eating or drinking area with beryllium-contaminated personal protective

clothing or equipment unless, prior to entry, surface beryllium has been removed from the clothing or equipment by methods that do not disperse beryllium into the air or onto an employee's body; and

* * *
(j) * * *
(1) * * *

(i) The employer must maintain all surfaces in beryllium work areas and regulated areas as free as practicable of beryllium and in accordance with the written exposure control plan required under paragraph (f)(1) and the cleaning methods required under paragraph (j)(2) of this standard; and

(2) * * *
(i) The employer must ensure that surfaces in beryllium work areas and regulated areas are cleaned by HEPA-filtered vacuuming or other methods that minimize the likelihood and level of airborne exposure.

(ii) The employer must not allow dry sweeping or brushing for cleaning surfaces in beryllium work areas or regulated areas unless HEPA-filtered vacuuming or other methods that minimize the likelihood and level of airborne exposure are not safe or effective.

(3) *Disposal and recycling.* For materials that contain beryllium in concentrations of 0.1 percent by weight or more or are contaminated with beryllium, the employer must ensure that:

- (i) Materials designated for disposal are disposed of in sealed, impermeable enclosures, such as bags or containers, that are labeled in accordance with paragraph (m)(3) of this standard; and
- (ii) Materials designated for recycling are cleaned to be as free as practicable of surface beryllium contamination and labeled in accordance with paragraph (m)(3) of this standard, or place in sealed, impermeable enclosures, such as bags or containers, that are labeled in accordance with paragraph (m)(3) of this standard.

DEPARTMENT OF LABOR**Occupational Safety and Health
Administration****29 CFR Part 1910**

[Docket No. OSHA–2018–0003]

RIN 1218–AB76

**Revising the Beryllium Standard for
General Industry****AGENCY:** Occupational Safety and Health Administration (OSHA), Labor.**ACTION:** Final rule; confirmation of effective date.

SUMMARY: OSHA is confirming the effective date of its direct final rule (DFR) adopting a number of clarifying amendments to the beryllium standard for general industry to address the application of the standard to materials containing trace amounts of beryllium. In the May 7, 2018, DFR, OSHA stated that the DFR would become effective on July 6, 2018, unless one or more significant adverse comments were submitted by June 6, 2018. OSHA did not receive significant adverse comments on the DFR, so by this document the agency is confirming that the DFR will become effective on July 6, 2018.

DATES: The DFR published on May 7, 2018 (83 FR 19936), becomes effective on July 6, 2018. For purposes of judicial review, OSHA considers the date of publication of this document as the date of promulgation of the DFR.

ADDRESSES: For purposes of 28 U.S.C. 2112(a), OSHA designates the Associate Solicitor of Labor for Occupational Safety and Health as the recipient of petitions for review of the direct final rule. Contact the Associate Solicitor at the Office of the Solicitor, Room S–4004, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210; telephone: (202) 693–5445.

FOR FURTHER INFORMATION CONTACT:

Press inquiries: Mr. Frank Meilinger, OSHA Office of Communications, Room N–3647, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210; telephone: (202) 693–1999; email: meilinger.francis2@dol.gov.

General information and technical inquiries: Mr. William Perry or Ms. Maureen Ruskin, 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; fax: (202) 693–1678.

Copies of this Federal Register document and news releases: Electronic copies of these documents are available

31046 Federal Register / Vol. 83, No. 128 / Tuesday, July 3, 2018 / Rules and Regulations

at OSHA's web page at <http://www.osha.gov>.

SUPPLEMENTARY INFORMATION:

I. Confirmation of Effective Date

On May 7, 2018, OSHA published a DFR in the **Federal Register** (83 FR 19936) amending the text of the beryllium standard for general industry to clarify OSHA's intent with respect to certain terms in the standard, including the definition of Beryllium Work Area (BWA), the definition of emergency, and the meaning of the terms dermal contact and beryllium contamination. It also clarifies OSHA's intent with respect to provisions for disposal and recycling and with respect to provisions that the agency intends to apply only where skin can be exposed to materials containing at least 0.1% beryllium by weight. Interested parties had until June 6, 2018, to submit comments on the DFR.

The agency stated that it would publish another document confirming the effective date of the DFR if it received no significant adverse comments. OSHA received seven comments in the record from Materion Brush, Inc., Mead Metals Inc., National Association of Manufacturers, Airborn, Inc., Edison Electric Institute, and two private citizens (Document IDs OSHA-2018-0003-0004 thru OSHA-2018-0003-0010). The seven submissions contained comments that were either supportive of the DFR or were considered not to be significant adverse comments. (Document IDs OSHA-2018-0003-0004 thru OSHA-2018-0003-0010). Three of these submissions also contained comments that were outside the scope of the DFR and OSHA is not considering the portions of those submissions that are outside the scope (OSHA-2018-0003-0004 thru OSHA-2018-0003-0006).

OSHA has determined this DFR will maintain safety and health protections for workers while reducing employers' compliance burdens. As the agency did not receive any significant adverse comments, OSHA is hereby confirming that the DFR published on May 7, 2018, will become effective on July 6, 2018.