

OSHA's 2017 Proposed Rule on Occupational Exposure to Beryllium and Beryllium Compounds in Construction and Shipyard Sectors

OSHA is proposing to revoke the ancillary provisions in the beryllium final rule for the construction and shipyard sectors, while retaining the lower permissible exposure limits.

On January 9, 2017, OSHA published a final beryllium rule that consisted of three separate comprehensive standards for general industry, construction, and shipyards. Consistent with the memorandum of January 20, 2017, from the Assistant to the President and Chief of Staff, entitled "Regulatory Freeze Pending Review" (82 FR 8346; January 24, 2017), OSHA has reviewed these beryllium standards. OSHA is requesting stakeholder input on a proposal to revoke the ancillary provisions in the January 2017 final standards applicable to the construction and shipyard sectors, while retaining the permissible exposure limit (PEL) of $0.2 \mu\text{g}/\text{m}^3$ as an 8-hour time weighted average and the short-term exposure limit (STEL) of $2.0 \mu\text{g}/\text{m}^3$ (15 minutes) for these two sectors. Retaining the lower PEL and STEL for the construction and shipyard sectors would be done through revisions of Appendix A to 29 CFR 1926.55 in construction and Table Z in 29 CFR 1915.1000 in shipyards. The construction and shipyard sectors include approximately 11,500 beryllium-exposed workers. Exposure to beryllium in these two sectors is limited to two operations – abrasive blasting with slags containing less than 0.1% beryllium and welding (shipyards only).

The general industry beryllium standard remains unaffected by this proposal and became effective on May 20, 2017 with an initial compliance date of March 12, 2018 for most requirements of the rule. Employers have an additional year — until March 11, 2019 — to provide required change rooms and showers, and an additional two years — until March 10, 2020 — to implement engineering controls.

Workers exposed to beryllium dusts, fumes, mists, or solutions are at risk of developing a serious beryllium-related lung disease called chronic beryllium disease (CBD). CBD can be debilitating and incurable, and is sometimes fatal.

Prior to developing CBD, workers must first become sensitized to beryllium. Sensitization occurs when there is an activation of the body's immune response to beryllium through either inhalation of or skin contact with beryllium dust, fume, mists, or solutions. While no clinical symptoms are associated with sensitization, a sensitized worker is at risk of developing CBD. Beryllium exposure also puts workers at risk for developing lung cancer.



Photo courtesy: iStock

OSHA encourages the public to participate in this rulemaking. OSHA is accepting comments on this proposal until August 28, 2017. Information about submitting comments on the proposed rule and requesting a public hearing can be found at www.federalregister.gov. Your input will help OSHA develop an effective final rule for beryllium in construction and shipyards that adequately protects workers and is feasible for employers.

Why is OSHA reconsidering the need for comprehensive standards in the construction and shipyards sectors?

OSHA is seeking comment on, among other things, whether existing standards covering abrasive blasting in construction and shipyards and welding in shipyards provide adequate protection for workers engaged in these operations.

Why is OSHA retaining the new lower PEL and STEL for these sectors?

OSHA reviewed the exposure data for abrasive blasting in construction and shipyards, and

welding in shipyards, and determined that there is a significant risk of CBD and lung cancer to those workers based on the exposure levels observed.

Which existing OSHA standards also provide protections for beryllium-exposed workers in construction and shipyards?

- Ventilation standard in construction (1926.57)
- Mechanical paint removers standard in shipyards (1915.34)
- Ventilation and protection in welding, cutting and heating in shipyards (1915.51)
- Confined and enclosed spaces standards in shipyards (Part 1915 Subpart B)
- Ventilation standard in general industry for exhaust ventilation and housekeeping (1910.94(a)(4), (a)(7))¹
- Respiratory Protection standard in general industry (1910.134)^{1,2}
- Hazard communication standard in general industry (1910.1200)^{1,2}

¹General industry standard applicable to shipyards

²General industry standard applicable to construction

How would these existing standards protect workers exposed to beryllium in construction and shipyards?

The standards listed above require employers to use engineering controls and personal protective equipment (PPE), like respirators, to protect their employees during hazardous operations. For example, employers are required to provide ventilation and PPE, like respirators, to workers performing abrasive blasting under the Ventilation standard for construction and the Ventilation and Mechanical paint removers standards for shipyards.

Who would be affected by the proposed rule?

About 11,500 workers in construction and shipyards are potentially exposed to beryllium from abrasive blasting in construction, abrasive

blasting in shipyards, and welding in shipyards. Abrasive blasters and support personnel may be exposed to beryllium above the action level of 0.1 µg/m³ from slags that contain trace amounts of beryllium (less than 0.1% beryllium by weight). Welders in shipyards are exposed when welding on beryllium-containing materials or using beryllium-containing filler material.

What are the main questions associated with the proposed regulatory action to which OSHA is seeking responses?

Does retaining the new lower PEL and STEL provide adequate protection to the workers in the construction and shipyard sectors, considering the other standards that apply?

- Should OSHA keep all or some of the ancillary provisions from the 2017 final standards for construction and shipyards?
- Should OSHA keep all or any part of the medical surveillance requirements for these sectors?

What economic effects are expected?

OSHA estimates that this proposal to revoke the ancillary provisions while retaining the lower PEL and STEL for construction and shipyards, if adopted, would yield a total annualized cost savings of \$10.2 million across the shipyard and construction sectors.

What should employers in the construction and shipyard sectors do now?

OSHA will not enforce the January 2017 construction and shipyard standards without further notice. Employers are also encouraged to participate in this proposed rulemaking.

How can I learn more about the proposed rule?

Visit OSHA's Proposed Beryllium Rulemaking webpage at www.osha.gov/beryllium/nprm_sectors.

For assistance, contact us. We can help. It's confidential.



www.osha.gov (800) 321-OSHA (6742)



U.S. Department of Labor