

OSHA's Beryllium Rule: Stakeholder Participation and Changes to the Proposed Rule

OSHA's final rule is the result of extensive review of the scientific evidence on adverse health effects associated with occupational exposure to beryllium, feasibility analysis, and importantly, substantial input from stakeholders.

OSHA's rulemaking process involves significant engagement with stakeholders. Information and comment provided by the public contribute to the development of rules that protect workers, are based on the best available evidence, and are feasible for employers. OSHA obtained input from the public on the beryllium rule through a variety of methods, including:

Engagement with small businesses

OSHA obtained input from small business representatives throughout the rulemaking process. OSHA's engagement with small businesses started before the proposed rule was issued with review under the Small Business Regulatory Enforcement Fairness Act (SBREFA). The SBREFA panel, including representatives from OSHA, the Small Business Administration's Office of Advocacy, and the Office of Management and Budget, conferred with small entity representatives from general industry and the abrasive blasting industry. The panel's final report includes comments and recommendations to OSHA for the proposed rule, many of which were incorporated in the proposal.

Consultation with Advisory Committees

Throughout the rulemaking process, OSHA engaged with the agency's Advisory Committee on Construction Safety and Health, which includes representatives of employers, workers, and other stakeholders in the construction industry. Early in the rulemaking process, OSHA consulted with the Maritime Advisory Committee for Occupational Safety and Health on beryllium exposure in the maritime industry. These advisory committees advise the Secretary of Labor and Assistant Secretary of Labor for OSHA on workplace safety and health issues in the construction and maritime industries.

Public comments and public hearings

OSHA published its Notice of Proposed Rulemaking for beryllium and beryllium compounds on August 7, 2015. Interested parties had until November 5, 2015, to submit comments on the proposed rule. OSHA held two days of informal public hearings on the proposed rule in Washington, D.C., on March 21-22, 2016. Stakeholders representing industry, public health groups, trade associations, labor unions, and workers testified during these hearings. OSHA allowed hearing participants until April 21, 2016, to submit additional information and data to the record, and until May 6, 2016, to submit final briefs and arguments.

Changes to the Proposed Rule

The final rule includes several major changes from the proposed rule as a result of OSHA's analysis of stakeholders' written comments and testimony on the proposed rule. These changes include:

Scope. In the proposed rule, OSHA proposed several alternatives regarding the scope of the rule. The scope of the final rule has been expanded to cover exposures to beryllium in construction and shipyards (one of the alternatives in the Proposal) as well as general industry. The decision to include standards for construction and shipyards, where the primary beryllium exposure is from abrasive blasting with slags, is based on information and comment submitted to and evaluated by OSHA during the public comment periods and public hearings. OSHA decided to issue three separate standards to address differences in each sector, although the structure of the final standards for general industry, construction, and shipyards remains generally consistent with other OSHA health standards.

The final rule retains the exemption for materials containing less than 0.1% beryllium by weight but with the qualifier that an employer claiming this exemption must have objective data demonstrating that employee exposure to beryllium will remain below the action level of 0.1 micrograms of beryllium per cubic meter of air ($\mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions. The objective data qualifier ensures the protection of workers who experience significant exposures from materials containing trace amounts of beryllium.

Exposure Assessment. The final rule provides employers with two options for exposure assessment: a scheduled monitoring option and a performance option. The final rule's scheduled monitoring option specifies that exposure monitoring must be repeated within six months where employee exposures are at or above the action level but at or below the TWA PEL, and within three months where employee exposures are above the TWA PEL or STEL. The proposed rule would have required exposure monitoring to be repeated annually where employee exposures were at or above the action level but at or below the TWA PEL. In the proposed rule, no periodic monitoring would have been required where employee exposures exceeded the TWA PEL. The final rule includes a new performance option as an alternative exposure assessment method. The performance option allows employers to assess employee exposures using any combination of air monitoring data and objective data sufficient to accurately characterize airborne exposure to beryllium.

Beryllium work areas. OSHA narrowed the definition of beryllium work areas from the proposal. The definition of beryllium work area in the final rule now requires that beryllium work areas be established in work areas containing a process or operation that can release beryllium where employees are, or can reasonably be expected to be, exposed to airborne beryllium at any level. The beryllium work area definition also includes areas where there is the potential for dermal contact with beryllium, meaning there is a reasonable expectation that an

employee's skin can become contaminated with beryllium-containing dust, fumes, mist, or solutions generated from a beryllium process or operation. The revised definition confines beryllium work areas to specific areas where a process or operation is generating airborne beryllium. This modification was in response to concerns both from industry and public health officials that the NPRM defined beryllium work areas too broadly. Beryllium work areas are not required for shipyards or construction.

Competent person. In the final rule, regulated areas are not required in the construction standard. Provisions associated with regulated areas in general industry and shipyards, such as restricting access to high-exposure areas, are instead addressed by a competent person requirement in the standard for construction.

Medical surveillance. The final rule requires that medical examinations be offered to each employee who is, or is reasonably expected to be, exposed at or above the action level of $0.1 \mu\text{g}/\text{m}^3$ for more than 30 days per year; who shows signs or symptoms of CBD; who is exposed to beryllium during an emergency; or whose most recent written medical opinion recommends periodic medical surveillance. The proposed rule would have required that medical examinations be offered to each employee who worked in a regulated area (i.e., an area where an employee's exposure exceeds, or can reasonably be expected to exceed, the TWA PEL or STEL) for more than 30 days in the last 12 months; who showed signs or symptoms of CBD; or who was exposed to beryllium during an emergency. The frequency of medical examinations has changed from at least once every year in the proposal to at least once every two years in the final rule.

Dates. In the final rule, the compliance dates have been extended to allow employers more time to comply with the requirements in the standards. The revised compliance dates are:

- Compliance with most provisions in the standards is required one year after the effective date instead of the 90 days after the effective date as proposed;
- Compliance with the change rooms and

showers provisions is required two years after the effective date; change rooms were required one year after the effective date in the proposal;

- Compliance with the engineering controls provision is required three years after the effective date; in the proposal, compliance with the engineering controls provision was required two years after the effective date.

Additional information

Additional information on OSHA's beryllium rule can be found at www.osha.gov/beryllium. OSHA can provide assistance through a variety of programs, including technical assistance about effective safety and health programs, workplace consultations, and training and education. OSHA's On-site Consultation Program offers free and confidential occupational safety and health services to small and medium-sized businesses in all states and several territories across the country, with priority given to high-hazard worksites. On-site consultation services are separate from enforcement and do not result in penalties or citations. Consultants from state

agencies or universities work with employers to identify workplace hazards, provide advice on compliance with OSHA standards, and assist in establishing and improving safety and health management systems. To locate the OSHA On-site Consultation Program nearest you, call 1-800-321-OSHA (6742) or visit www.osha.gov/consultation.

Twenty-eight states and territories operate their own occupational safety and health state plans approved by OSHA. State plans are required to have standards that are "at least as effective" as OSHA's standards, and may have different or additional requirements. To locate an OSHA-approved state plan, visit www.osha.gov/dcsp/osp. For more information on this and other health-related issues impacting workers; to report an emergency, fatality, or inpatient hospitalization; or to file a confidential complaint, contact your nearest OSHA office, visit www.osha.gov, or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

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



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



U.S. Department of Labor