

OSHA's Notice of Proposed Rulemaking for Beryllium

1910.1024

Beryllium Health and Safety Meeting
November 3, 2015

Beryllium NPRM Timeline

- Completed SBREFA Panel January 2008
- United Steelworkers and industry leader Materion jointly developed a model Be standard; sent to OSHA in 2012
- OSHA published beryllium NPRM August 7, 2015
- Find the NPRM and submit comments at regulations.gov
- Next Steps:
 - Public comment period will end November 5, 2015
 - OSHA will review comments and develop a final rule

Proposed Beryllium Standard (General Industry)

- Permissible exposure limit (PEL) of $0.2 \mu\text{g}/\text{m}^3$ (8 hour TWA)
- Short term exposure limit (STEL) of $2 \mu\text{g}/\text{m}^3$ (15 min)
- Action level (AL) of $0.1 \mu\text{g}/\text{m}^3$ (8 hour TWA)
- Materials containing less than 0.1% beryllium by weight are not covered.
- Articles are not covered.

Exposure Monitoring Requirements

- Initial monitoring
- Option to use objective data
- Periodic monitoring
 - At least annual
 - Only required if prior levels are between AL and TWA PEL

Regulated and Beryllium Work Areas

– Regulated areas

- Airborne beryllium exceeds TWA PEL or STEL
- Demarcate and limit access to authorized persons
- Provide medical surveillance to workers

– Beryllium work areas

- Demarcate areas with airborne beryllium
- Establish and implement a written exposure control plan
- Where exposures exceed the AL, implement at least one form of engineering or work practice controls

Personal Protective Clothing and Equipment (PPE)

– Respiratory protection

- Where exposure exceeds the TWA PEL or STEL
- Special circumstances (e.g., maintenance, installation of exposure control equipment, emergencies)

– Other PPE

- Where exposure exceeds the TWA PEL or STEL
- Visible contamination of work clothing or skin
- Exposure to soluble beryllium

Medical Surveillance

- Annual physical exams and biennial testing for beryllium sensitization (BeS)
 - For workers in regulated areas, exposed in an emergency, or showing signs and symptoms of CBD
- Sensitized workers receive clinical evaluation for CBD
- Low-dose helical tomography (CT scans)
 - For early detection of lung cancer in workers with long-term exposure above $0.2 \mu\text{g}/\text{m}^3$ (≥ 5 yrs)

Medical Removal Protection

- Eligible workers: diagnosed with CBD or confirmed positive for BeS *and* in job with exposure at or above the AL
- Eligible workers must choose whether to accept medical removal benefits, or continue in exposed job with respiratory protection.
- Medical removal: placement in comparable work if available, or up to 6 months of paid leave

Options Under Consideration for Construction and Maritime

- Expand the scope of the proposed standard to include construction and maritime sectors
- PEL only standard for construction and maritime
 - Update Be PEL in 1926.55 Appendix A
- Extend medical surveillance provisions to employees in shipyards and construction

Questions?

Now or later!

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Be Exposures in the Construction Industry

- Abrasive Blasting
 - Slags – primarily coal and copper slags
 - Mostly open-air blasting (e.g., bridges, water tanks)
 - Be levels can be elevated due to extremely high dust levels
 - Blaster typically protected from high dust levels with supplied air respirators and protective clothing
 - Estimate of 23,000 workers involved in open-air blasting
 - Existing construction standards provide Be exposure protection to workers (ventilation – includes abrasive blasting, PPE, respiratory protection)