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 μg/m$^3$ (8 hour TWA)
- Short term exposure limit (STEL) of 2 μg/m$^3$ (15 min)
- Action level (AL) of 0.1 μg/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 μg/m³ (≥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!

Tiffany DeFoe
Office of Chemical Hazards – Metals
Directorate of Standards and Guidance

defoe.tiffany @ dol.gov
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)