

How do we approach “acute low-level beryllium exposure?”

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Notice to viewers

This presentation consists of talking points directed at a discussion of *possible* LOW-LEVEL, INCIDENTAL EXPOSURE assumed after discovery of the presence of measurable surface and/or airborne amounts of beryllium, beryllium dust or beryllium oxide (or other sensitizing form of beryllium) in an area in which a worker or workers had been present, unaware that the area had been designated—or was subsequently designated—a beryllium control area. Perhaps a more descriptive title for this presentation would have prevented the apparent confusion it generated (e.g. Acute Low-level Beryllium Exposure...) In that vein, I have added “**Low-level**” in a smaller font size and different font color in each instance in which the term “Acute Beryllium Exposure” appears

Do we have a definition for ALBE?

- 10 CFR 850
- Usually in reference to high-level exposures
 - Various sources (including ATSDR):
 - 50-100 $\mu\text{g}/\text{m}^3$
 - Leading to Acute Beryllium Disease
 - A pneumonitis
- Acute, high-level exposures can cause both ABD and CBD
 - Immediate effect on lungs
 - BeS can subsequently occur

What should be the response to ALBE?

- By exposed worker?
 - Leave the area
 - Report to supervisor
 - Change clothes/shower?
- By Industrial Hygiene?
 - Sampling/monitoring
 - Restrict entry
 - Signage
 - Barrier?
- By Safety and Health?
- By Medical Contractor?
 - Evaluate as for any other exposure
 - Develop informational materials about evaluation

Medical Implications

- What if BeLPT drawn on day of exposure comes back abnormal/positive?
 - A week later? (worker has the option to read, mark and inwardly digest all the information given about CBD before being tested)
- Even if negative, if becomes positive a week, month or year later, does it imply that exposure as causative?
- Does it matter?
- “Acute beryllium disease is very rare today. Current workplace safety regulations prevent the massive quantities of beryllium that cause acute beryllium disease from being released into the air.” [Cleveland Clinic](#)

Work Considerations

- What are the steps taken to prevent further exposure?

Legal and Compensation Considerations

- Documentation
 - In contractor's records
 - In medical records
- Liability
 - Contractor's
 - Other?
- Workers Compensations issues
 - Thoughts?

Risk Communication

- Important that worker understands the implications of exposure and testing.
- All personnel involved must be well-versed in risk communication principles.
 - HAMMER training class for PICs, planners, supervisors
 - There is a plethora of information on beryllium health issues on various websites
 - Worker can be easily overwhelmed, confused—especially when needing to make a decision (BeLPT or no?) in short period of time
- HPMC OMS with Hanford CBDPP Committee developing one-page Beryllium **Low-level** Exposure Evaluation Procedure document