[Poster Board #320] Preventive Program Reduces Sensitization in Beryllium Workers, [Publication Page: A252]

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Rationale: In a 1992 beryllium lymphocyte proliferation test (BeLPT) survey at a beryllium ceramics facility, 5.9% (8/136) of workers had at least 2 abnormal tests and were classified as beryllium-sensitized (BeS). The facility used engineering to reduce airborne levels; despite this, 9.5% (7/74) of workers hired after 1992 were BeS in a 1998 survey. Over the next 2 years, the facility implemented a comprehensive preventive program, including increased respiratory and dermal protection and particle migration control, and instituted serial BeLPTs in new workers.

Methods: Starting in 2000, new workers were tested with the BeLPT at hire and 3, 6, 12, 24, and 48 months (mos) of employment. Tests were analyzed at a single laboratory; abnormal results were repeated there and at a second lab. We classified workers with 2 abnormal results as BeS. We compared workers hired from 2000-4 with workers hired from 1993-8 for sensitization per person-mos of employment. We compared 2000-4 and 1996-9 beryllium airborne personal sampling data

Results: From 1/2000-12/2004, 93 new workers with normal BeLPT on hire had at least 1 post-hire BeLPT. The 93 worked for a mean of 16 mos (range 3-48 mos). One worker was classified as BeS, for a sensitization rate of 0.66 per 1000 person-mos of employment. Our comparison group consisted of 70 workers hired from 1993-8 who worked for a mean of 16 mos (range 3-55 mos). In the 1998 survey, 7 were classified as BeS, or 6.4 per 1000 person-mos of employment, 10 times greater than the 2000-4 group. The OSHA permissible exposure limit was likely to have been exceeded in 2% of the 2000-4 and 1% of the 1996-9 samples.

Conclusions: A comprehensive preventive program reduced BeS in new workers.

The findings and conclusions in this abstract have not been formally disseminated by NIOSH and should not be construed to represent any agency determination or policy.

Session Info: [\*\*] Poster Discussion Session, [A96] CURRENT TOPICS IN OCCUPATIONAL AND ENVIRONMENTAL LUNG DISEASES

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