

HSS Independent Activity Report - Rev. 0**Report Number:** HIAR-LLNL-2011-03-25**Site:** Lawrence Livermore
National Laboratory**Subject:** Office of Enforcement and Oversight's Office of Safety and Emergency
Management Evaluations Activity Report for the Lawrence Livermore
National Laboratory Chronic Beryllium Disease Prevention Program
Effectiveness Review**Dates of Activity :** 03/14/2011 – 03/25/2011**Report Preparer:** Marvin Mielke**Activity Description/Purpose:**

The Lawrence Livermore National Laboratory (LLNL) and the Livermore Site Office (LSO) chartered a team to conduct an effectiveness review of the issues identified with the LLNL Chronic Beryllium Disease Prevention Program (CBDPP). The team included members and observers from LLNL, LSO, the National Nuclear Security Administration (NNSA), and the Office of Health, Safety and Security (HSS). The team's final report documents the results of the effectiveness review and the actions taken by LLNL to resolve and prevent recurrence of 44 issues identified in 9 Department of Energy (DOE) Noncompliance Tracking System reports, the 2008 NNSA independent review, and the HSS Office of Enforcement Consent Order WCO-2010-01. The HSS member assessed issues related to the sections of 10 Code of Federal Regulations 850 concerning medical surveillance and medical removal.

Result:

The scope and review approach was clearly documented in the Effectiveness Review Plan that followed LLNL Procedure PRO-0077, "*Conducting an Effectiveness Review.*" The effectiveness review team was provided training on PROP-0077 prior to the data collection visit. The review approach included LLNL management and staff interviews, work observations, document reviews, subject matter expert (SME) discussions, and facility tours to ensure that effectiveness criteria were appropriately considered. The effectiveness review team was composed of well qualified SMEs who were able to reach consensus on the overall results of the effectiveness review report and provided a detailed analysis of LLNL's actions.

The effectiveness review team observed that "There have been significant improvements in achieving the objectives of the Beryllium Rule since the Office of Enforcement and NNSA reviews." However, the effectiveness review team had concerns about whether the changes would be enduring because there were still expert-based approaches in the implementation of some elements of the program. Of the 44 issues reviewed, 30 were deemed to have been effectively resolved, 9 were partially resolved, and 1 remains unresolved. The effectiveness review team concluded that "Not all elements of the CBDPP are being effectively implemented for activities with potential for worker exposure to beryllium." Specifically, there was a lack of formality in the conduct of industrial hygiene activities, and exposure/characterization data was not always properly documented. Additionally, the controls for working with beryllium articles, small beryllium parts, and beryllium storage areas were not effectively established. Training, postings, and sampling were not consistently applied in several laboratory settings.

The medical surveillance and medical removal issues cited in the DOE investigation report have been effectively resolved. The Medical Director, beryllium SME, and the Environment, Safety and Health Director have improved the analysis process for beryllium-related data, procedures have been modified to ensure that medical surveillance and medical removal programs have clear roles and responsibilities, and LLNL has vastly improved outreach to all employees who would benefit from the beryllium medical surveillance program.

HSS Participants

1 (lead). Marvin Mielke

References

– Final Report, Effectiveness Review of the Issues Identified in the Lawrence Livermore National Laboratory Chronic Beryllium Disease Prevention Program, LLNL-AR-480995

Were there any items for HSS follow up? Yes No**HSS Follow Up Items**