



**Environment, Safety, Health & Assurance**

G40 TASF

Interoffice Communication

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**To:** Sean Whalen  
**cc:** Shawn Nelson  
**From:** Julia Sager, ESH&A  
**Date:** March 15, 2016  
**Subject:** 2014 Annual Performance Review of the Chronic Beryllium Disease Prevention Plan

The Annual Performance Review of the CBDPP, covering events from October 31, 2013 through the end of calendar year 2014, is attached.

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# 2014 ANNUAL REVIEW

## CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM

### 1.0 SCOPE

This annual review has been conducted in order to assess compliance with the requirements of the written Ames Laboratory (AL) Chronic Beryllium Disease Prevention Plan (CBDPP), as mandated by 10 CFR Part 850 – Chronic Beryllium Disease Prevention Program. This review addresses the requirements found at 850.40, Performance Feedback.

### 2.0 DATES

Julia Sager, CIH CSP, performed this Annual Program Review in March 2015, reviewing the data covering the period since the previous Annual Review and Topical Appraisal, dated October 31, 2013, until December 31, 2014.

### 3.0 DISCUSSION

#### 3.1 GENERAL REQUIREMENTS

The standard requires that the employer “conduct periodic analyses and assessments of monitoring activities, hazards, medical surveillance, exposure reduction and minimization, and occurrence reporting data.” In addition, the standard requires that the employer identify a list of beryllium-associated workers and provide the site medical officer with the information needed to operate the medical surveillance program. All these requirements have been met.

#### 3.2 PROGRAM DOCUMENTATION

The following program documents and information sources were reviewed:

- Ames Laboratory Chronic Beryllium Disease Prevention Plan (CBDPP), Plan 10200.031, Revision 5.0. The effective date for this revision was 1/15/14 and the next review date is 1/15/17.
- Industrial hygiene sampling records related to beryllium from October 31, 2013, through December 31, 2014.
- Occupational Health Manager (OHM) records.
- Ames Laboratory Training Department Records.
- Readiness Review database reports.

### 3.3 SUMMARY OF PERFORMANCE

Results of this review are as follows:

- 1) The Ames Laboratory Chronic Beryllium Disease Prevention Plan, Plan 10200.031, Revision 5.0 (the "Ames Lab CBDPP") contains all of the elements required by 10 CFR Part 850.
- 2) The operations conducted with the potential for causing beryllium exposure to workers or the inadvertent spread of contamination identified during the time period covered by this report were as follows:
  - a) A project in the basement of Spedding Hall (SPH B1), in which an opening was cut into the upper portion of an existing block wall to route a ventilation duct. The mortar was found to be contaminated with beryllium and therefore the project was done in a negative pressure containment area with appropriate worker protection precautions. Personal breathing zone sampling indicated beryllium exposure was below the current DOE limit of  $0.2 \mu\text{g}/\text{M}^3$  (8-hr TWA), without regard to the respiratory protection worn. (Note: Crystalline silica was also sampled, and one result exceeded the 2005 ACGIH TLV of  $0.050 \text{ mg}/\text{m}^3$  during the sampled time, although since the work did not take all day the overall daily TLV-TWA was not exceeded.)
  - b) Wipe sampling done before work was conducted in the HWH chases (room 38, 50, and 54) conducted in November 2014 indicated that results were below the DOE surface standard of  $0.2 \mu\text{G}/100 \text{ cm}^2$ . However, since there was measurable beryllium, damp wiping of the affected surfaces was recommended before removal or working on the items or plumbing.
  - c) A small project involving block removal in Spedding Hall basement (SPH B31), associated with running conduit. This work was conducted by a skilled craftsman wearing a half-mask NIOSH P100 filtering face piece. Breathing zone sampling result indicated beryllium exposure was below the current DOE limit of  $0.2 \mu\text{g}/\text{M}^3$  (8-hr TWA), without regard to the respiratory protection worn.
- 3) The following deficiencies noted in the 2013 Topical Appraisal were corrected as described below:
  - a) "The content of the beryllium training curriculum delivered by the former industrial hygienist could not be documented. In addition, there was no record of attendance at the previous training and information events."
    - i) To correct this deficiency, a new classroom training course, AL-236, "Beryllium Awareness" was created and entered into the CyberTrain catalog. The learning objectives and slides for this class are maintained on the Training server.
    - ii) The Training department maintains attendance records for this course.
  - b) "Updated beryllium-specific training has not been conducted and documented every two years for those identified as potentially exposed to beryllium."
    - i) AL-236 training has been delivered to all affected employees, and the re-train interval is tracked in CyberTrain (Attachment 1, AL-236 TAKEN).
    - ii) The Readiness Review database was searched for all individuals listed as being assigned to activities requiring this training (Attachment 2, AL-236 Training Required).
    - iii) The two lists (AL-236 Training Required, and AL-236 TAKEN) were compared. All individuals for which training is required have completed training within the last 2 years.
  - c) "There is no record of whether counseling covering all requirements of 10 CFR Part 850 37(f) was offered to sensitized workers."
    - i) A Beryllium Sensitization Resource Guide (Handout 10200.041) was written and provided to the Occupational Medicine department for the use of the physician when consulting with sensitized workers.

- ii) The AL-236 training curriculum now includes a slide informing workers of their right to receive counseling if sensitization develops.
- d) The Supervising Occupational Medicine Nurse implemented a Sensitized Worker Plan (Attachment 3) in the Occupational Medicine Department.
- e) No records were found indicating communications regarding sensitized worker(s) between the SOMD (Located in the Occupational Medicine Department) and the Industrial Hygiene Manager or other ESH&A staff members.
  - i) Emails communicated sampling results from the Industrial Hygiene Manager to the SOMD will now be archived.

## **4.0 SUMMARY OF PROGRAM PERFORMANCE**

### **4.1 MEDICAL SURVEILLANCE**

No new cases of beryllium sensitization or CBD were identified in the time frame covered in this report. The SOMD and the IH Manager communicate regularly about areas of concern both in meetings and with email documentation.

### **4.2 TRAINING**

All identified beryllium-associated workers are up-to-date on training as of March 26, 2015.

### **4.3 EXPOSURE ASSESSMENTS**

Exposure assessments for beryllium were conducted in the following areas:

## **5.0 CONCLUSION**

The program is currently compliant with Implementation Guide DOE G 440.1-7A.

## **6.0 ATTACHMENTS**

1. AL-236 Taken
2. AL-236 Training Required
3. Sensitized Worker Plan

# Courses Taken by Student

## AL-236 Beryllium Awareness

Full Name	Date Completed
BERGMAN, BRIAN	11/19/2013
BERRETT, RONALD	11/12/2013
BURGHER, ALEXANDER	11/12/2013
CARTER, STEVEN	11/12/2013
DAHL, VINCENT	11/12/2013
DOTZLER, MIKE	11/12/2013
EWING, KENNETH	11/12/2013
FLANDERS, DUANE	11/12/2013
GILLILAND, STEVEN	11/12/2013
HARPER, GREGORY	11/12/2013
LII, YI-ANN	9/3/2014
MALMQUIST, RICHARD	11/12/2013
MORRIS-BENAVIDES, SARAH	11/3/2014
RINK, ROGER	2/7/2014
SWOBODA, JEFFREY	11/12/2013
VACLAV, MICHAEL	11/12/2013
VANMAREL, ROSS	11/12/2013
WHALEN, SEAN	3/3/2015

# Roster of Authorized Users Requiring a Given Training Class

## AL-236 Beryllium Awareness

Currently Authorized?

77581	Alex Burgher
73737	Brian Bergman
61305	Duane Flanders
57606	Greg Harper
13288	Jeff Swoboda
41246	Mike Dotzler
39390	Richard Malmquist
67318	Ron Berrett
56111	Ross Van Marel
34487	Steve Gililand

Currently Authorized?

Warren Ahrens

# Sensitized Worker Plan

The Nursing Supervisor or SOMD will contact the Industrial Hygienist when a worker(s) test positive for sensitization. The Industrial Hygienist will then perform an assessment of the work area(s) and communicate the findings as previously noted CA b(1).