



BHSC NEWS

SPOTLIGHT: BERYLLIUM SENSITIZATION

This month's SPOTLIGHT focuses on Beryllium Sensitization (BeS). Two recent articles are featured.

The first, **Advances in Identifying Beryllium Sensitization and Disease**

Dan Middleton, and Peter Kowalski, provides an advanced understanding of different screening algorithms through the use of basic epidemiologic concepts.

The second article, **Long-term follow-up of beryllium sensitized workers from a single employer**

Mona Duggal, David C. Deubner, Anne M. Curtis, Mark R. Cullen, investigates long term clinical manifestations in workers.

Abstracts and full view articles (pdf) are provided.

See Pg. 4 SPOTLIGHT

Chairman's Corner

BY MIKE BRISSON

Chairman, BHSC

It's a new year with new opportunities, and perhaps some proposals for changes in beryllium regulations. For both DOE's rule (10 CFR 850) and OSHA's Permissible Exposure Limit, changes are in the works, and notices of proposed rulemaking are possible for one or both of these this year. We will make sure the BHSC membership stays informed, and although it is not our policy to submit comments as a committee, we will provide information and encourage individual

members to submit comments.

Presentations given at the November BHSC meeting are now posted on our web site. From the BHSC home page, click on Events, then November meeting, to find the list of links to the individual presentations. Thanks to Linda Youmans-McDonald for rounding these up, and to Melecita Archuleta for posting them for us.

The preliminary agenda for the Spring meeting can be found elsewhere in the *BHSC News*. I realize that the timing of our meeting has raised some questions

for those that are also interested in the EFCOG/DOE Chemical Safety and Lifecycle Management Workshop being held at the same time, literally across the hall from our meeting. We originally had some joint meetings scheduled with EFCOG, but these meetings were called off, and by that point it was too late for us to change. We will avoid this conflict in future years.

Regarding the Spring meeting, I would like to highlight two things. First, on Monday afternoon, March 15, we plan to have a demonstration of the Visual Sample Plan software developed at Pacific Northwest

See Pg. 3 Chairman's Corner

BERYLLIUM HEALTH & SAFETY COMMITTEE

Special points of interest:

- > SPOTLIGHT ON:
Beryllium Sensitization
- > AIHA Proficiency Analytical Testing Program: Beryllium Oxide

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MEETINGS: JOWOG [US-UK Joint Working Group] - BHSC BOARD - BHSC

JOWOG Meeting: Summer 2010
Summer 2010: AWE Aldermaston United Kingdom June 22-24

BHSC/BHSC BOARD Meeting: Spring 2010
Spring 2010: Department of Energy Washington, DC. BHSC BOARD March 15 BHSC March 16-17

JOWOG / BHSC BOARD Meeting: Fall 2010
Fall 2010: Livermore California November 2

BHSC Meeting: Fall 2010
Fall 2010: Livermore California November 3-4

MEETING LOCATIONS
Locations for the Spring 2011 and Fall 2011 meetings are now being solicited.
Fall meetings are typically in the western U.S.
Spring meetings are typically in the eastern U.S. (or at AWE).
Locations typically need to be at a DOE, DoD, or AWE site.
NOTE: If you would be interested in hosting a meeting, please contact Mike Brisson.

NOTE: Participation in JOWOG meetings is limited to members of the Beryllium Health and Safety Committee (BHSC) at DOE sites and HQ.

Due Dates for Abstracts

Extended to March 1, 2010

ASTM Symposium on Surface and Dermal Sampling, San Antonio, TX (opportunity for presentation and/or publication); info at <http://www.astm.org/d22symp1010.htm>

Beryllium Sessions Planned for AIHce 2010

Two beryllium-specific sessions are anticipated for AIHce 2010 in May 2010 in Denver.

They are:

- Tuesday, May 25, 10:30 AM to 12:30 PM
Roundtable on Beryllium Oxide and the Beryllium Proficiency Analytical Testing Program (four speakers)
- Wednesday, May 26, 5:00 to 7:40 PM
Beryllium Health and Safety Research and Case Studies (eight speakers)

Both are being arranged by BHSC Chair Mike Brisson.

If you will be at AIHce this year, please make room for these sessions on your schedule. For those interested in the DOE industrial hygiene session normally held on Wednesday night of AIHce week, please note that this session will be on Monday night this year and will not conflict with the beryllium session.

Reminder to Members Regarding Sharepoint Access

The Sharepoint collaboration area used by BHSC members is managed by Sandia National Laboratory. We are required to follow Sandia's requirements regarding access and training. One of these is an annual re-training requirement, which consists of a brief on-line reading package. When you are notified, please complete the re-training by the specified time. Those not doing so are subject to having access to Sharepoint removed. This will not remove you from BHSC membership, but it will prevent your access to members-only information on the Sharepoint site.

BHSC Board Report

MIKE BRISSON

Chairman, BHSC

The Board had teleconferences on December 16, 2009, and January 20, 2010. The following are highlights of items discussed in these meetings:

- Revisions to the BHSC Charter continue in progress. John Bishop is leading this effort. The goal is to distribute the proposed new charter to the membership prior to the Spring meeting, and vote on it at the meeting.
- Proposed revisions to the white paper approval policy will, due to the complexity involved, likely not be ready for a vote at the Spring meeting. A key goal is that white papers be approved by the full membership, but implementation of voting procedures will require additional time to develop. Detailed discussion is planned for the Spring Board meeting on March 15.
- Progress continues on the white paper, "Developing Alternative Medical Testing Procedures for CBD Detection". The goal is to distribute the final draft to the membership prior to the Spring meeting, and vote on it at the meeting.

The Data Reporting Task Force has been dissolved. The DRTF issued two white papers, both available on the BHSC web site. A third white paper had been started regarding data quality objectives and limit values; however, the chapter on Data Use, Quality, Reporting, and Communication, by Grams and Davis, in *Beryllium: Environmental Analysis and Monitoring*, has addressed this topic.

As a reminder, BHSC Board meetings and teleconferences are open to others who may be interested. Please contact Mike Brisson for additional information.

Chairman's Corner (cont.)

National Laboratory. This software facilitates development of a plan based on statistical sampling theory, and has been useful at several DOE sites. The main two-day BHSC meeting will follow on March 16-17. We are in the process of inviting the new OSHA administrator, Dr. David Michaels, to our meeting. Hopefully we will know by time of the next newsletter whether he can participate.

Finally, to those of you that are not active in any of our subcommittees or working groups, I'd like to encourage you to take a look at the February call list and try out one or more of our groups. Whatever your interest in beryllium health and safety, one of our groups is probably doing something in that area.

Thanks!

(The views expressed in the Chairman's Corner are those of the chairman and are not necessarily official positions of the BHSC.)

BERYLLIUM HEALTH & SAFETY COMMITTEE

BHSC BOARD MEMBERS

Mike Brisson, Chairman
 Geoffrey Braybrooke, Vice
 Chair
 David Weitzman, Vice Chair
 Dan Field, Secretary
 Amy Ekechukwu
 Tony Quinn
 Mike McCawley
 John Bishop
 Tom Ford
 Linda Youmans-McDonald
 Lisa Barker
 Paul Wambach
 Kathleen Noonan

Spotlight (cont.)

Advances in Identifying Beryllium Sensitization and Disease

Dan Middleton 1,* and Peter Kowalski 2

Abstract: Beryllium is a lightweight metal with unique qualities related to stiffness, corrosion resistance, and conductivity. While there are many useful applications, researchers in the 1930s and 1940s linked beryllium exposure to a progressive occupational lung disease. Acute beryllium disease is a pulmonary irritant response to high exposure levels, whereas chronic beryllium disease (CBD) typically results from a hypersensitivity response to lower exposure levels. A blood test, the beryllium lymphocyte proliferation test (BeLPT), was an important advance in identifying individuals who are sensitized to beryllium (BeS) and thus at risk for developing CBD. While there is no true "gold standard" for BeS, basic epidemiologic concepts have been used to advance our understanding of the different screening algorithms.

Full text article <http://www.mdpi.com/1660-4601/7/1/115/pdf>

Long-term follow-up of beryllium sensitized workers from a single employer

Mona Duggall, David C. Deubner², Anne M. Curtis³, Mark R. Cullen^{4*}

Abstract: Background: Up to 12% of beryllium-exposed American workers would test positive on beryllium lymphocyte proliferation test (BeLPT) screening, but the implications of sensitization remain uncertain.

Methods: Seventy two current and former employees of a beryllium manufacturer, including 22 with pathologic changes of chronic beryllium disease (CBD), and 50 without, with a confirmed positive test were followed-up for 7.4 +/-3.1 years.

Results: Beyond predicted effects of aging, flow rates and lung volumes changed little from baseline, while DLCO dropped 17.4% of predicted on average. Despite this group decline, only 8 subjects (11.1%) demonstrated physiologic or radiologic abnormalities typical of CBD. Other than baseline status, no clinical or laboratory feature distinguished those who clinically manifested CBD at follow-up from those who did not.

Conclusions: The clinical outlook remains favorable for beryllium-sensitized individuals over the first 5-12 years. However, declines in DLCO may presage further and more serious clinical manifestations in the future. These conclusions are tempered by the possibility of selection bias and other study limitations.

Full text article <http://www.biomedcentral.com/1471-2458/10/5>

Conference Call Schedule—FEBRUARY 2010 (All times Eastern Standard Time)

Scheduled duration is one hour for all calls. All times are U.S. Eastern times (GMT-5). If you are told that the subscriber has not yet arrived, please do not hang up; wait about 15 seconds and you will be prompted for your name, and then you will be connected to the call.

Two new Sampling and Analysis Subcommittee (SAS) working groups will have their initial conference calls this month. The Decon Blue Gel Working Group, led by Roberto Mandanas, meets on February 2 at 3 PM Eastern. The LIBS Working Group, led by Rick Russo, meets on February 3 at 11 AM Eastern.

Date	Day	Time	Group	Leader
02-Feb-2010	Tue	11 AM	Meetings/Symposia SC	Linda Youmans-McDonald
02-Feb-2010	Tue	3 PM	Gel Surface Sampling WG	Roberto Mandanas
03-Feb-2010	Wed	11 AM	LIBS WG	Rick Russo
04-Feb-2010	Thu	11 AM	Fluorescence WG	Anoop Agrawal
09-Feb-2010	Tue	11 AM	Sampling/Analysis SC	Amy Ekechukwu
09-Feb-2010	Tue	3 PM	Research Needs SC	Mike McCawley
10-Feb-2010	Wed	11 AM	Medical/Epidem. SC	Paul Wambach/Kathleen Noonan
11-Feb-2010	Thu	11 AM	Risk Communication SC	Lisa Barker
16-Feb-2010	Tue	11 AM	BeO/Digestion WG	Tom Datts
16-Feb-2010	Tue	3 PM	Meetings/Symposia SC	Linda Youmans-McDonald
17-Feb-2010	Wed	11 AM	BHSC Board	Mike Brisson
18-Feb-2010	Thu	11 AM	Accreditation WG	Diana Decker
23-Feb-2010	Tue	11 AM	Sampling WG	Geoff Braybrooke
23-Feb-2010	Tue	3 PM	Technical Standards SC	David Weitzman

**Conference Call
Number**

803-725-1403

**Pass code
2227011**



In Touch

David Michaels Confirmed as OSHA Administrator: Timeline

President Barack Obama nominated Michaels, an epidemiologist and research professor at the Department of Environmental and Occupational Health at the George Washington University School of Public Health and Health Services, to head OSHA on July 28. The Senate Health, Education, Labor and Pensions (HELP) Committee approved Michaels' nomination on November 18. On December 3, 2009, the senate voted to confirm David Michaels as the assistant secretary of labor for OSHA. Michaels' confirmation gives OSHA its first permanent administrator since Edwin Foulke Jr. resigned in November 2008.

Support to Haiti

Giving Expertise or Supplies

Technical Assistance or Commodity can be donated through the Center for International Disaster Information (CIDI) <http://www.cidi.org/>.

All offers of assistance to the earthquake situation in Haiti, be they technical assistance or commodity, MUST be registered with the [CIDI database](#). E-mails with volunteer/commodity offers will not be included in the database and will not be included for consideration.

Making a Cash Contribution

Cash is widely recognized as the most effective and efficient means of providing relief to Haiti's earthquake victims. This preferred method for giving assistance is best done by selecting an agency with experience working in Haiti. The CIDI site provides a link to an updated list of Inter-Action member agencies which are accepting cash donations in response to this emergency. One major agency with decades of experience is the American Red Cross. *(The views expressed in Be In Touch are those of the editor and are not necessarily official positions of the BHSC.)*

AIHA Proficiency Analytical Testing Program: Beryllium Oxide (BeO)

The Beryllium Health & Safety Committee's Sampling and Analysis subcommittee working group for beryllium oxide and digestion issues (Tom Datts, working group lead) worked extremely hard to develop a Beryllium Oxide Solid Standard Reference Material, obtain approval by NIST (SRM® 1877), conduct round robin testing, and worked to have it included in the AIHA Proficiency Analytical Testing Program. The Beryllium Accreditation Guidance Document was developed with input from the BHSC Accreditation Working Group

Special thanks to Tom Datts, Analytical Chemistry, Y-12 National Security Complex; Larissa Welch, Analytical Chemistry, Y-12 National Security Complex; Amy Adams of High Purity Standards, Charleston, SC; Marc Kolanz, Brush Wellman; and Mike Brisson, Analytical Laboratories, Savannah River Nuclear Solutions LLC, Savannah River Site.

The following AIHA Proficiency Analytical Testing Program (BePAT) information can be viewed at.

<http://admin.aihapat.org/bepat/Pages/default.aspx>

- question and answers concerning the program
- documentation on submitting test results
- program fees
- PT Program Schedule
- Documents, Forms, and Policies
- Beryllium Accreditation Guidance Document
- Summary report on BHSC BeO round robin (November 2009)

PRELIMINARY AGENDA (Rev. 0, 26-Jan-2010)
Spring 2010 BHSC and Affiliated Meetings – March 15-17, 2010
U.S. DOE Headquarters, Forrestal Building, Washington, DC

Registration is requested for in-person AND remote participants (will be available on-line at a later date).

"Foreign nationals should not register on line,

but should contact David Weitzman, david.weitzman@hq.doe.gov, for registration requirements."

All times are local (Eastern Standard or GMT-5). ABIH points will be requested. Telephone conferencing will be available for the Board and BHSC meetings. To participate remotely by phone: +1-803-725-1403, access code 2227011.

No security clearance is required for any of the BHSC meetings. Additional information may be requested from individuals without a DOE clearance, as well as foreign nationals, before the meeting. Submitting this information ahead of time will reduce wait times for building admittance on the days of the conference.

Remote viewing of presentations available using GoTo™ Meeting; the web link will be provided to those who have registered to participate remotely.

NOTE: Please report to the security desk at the Forrestal building front entrance 45 minutes early for the first session you plan to attend.
This will allow time for badge/access card issue.

Monday, March 15

0830-1200	BHSC Board Meeting – Open to all interested Ω Location: GH-D19	
1200-1330	LUNCH	
1330-1630	VSP demonstration, Ω Location: GH-D19	Dr. Jayne-Anne Bond

Tuesday, March 16

	BHSC Meeting Ω Location: Small Auditorium	
0800-0830	Registration, Coffee	
0830-0845	Welcoming Remarks	
0845-0930	Keynote Presentation	(to be invited: Dr. David Michaels, OSHA)
0930-1015	Unclassified Portion of Fall 2009 JOWOG:	Gary Whitney
1015-1030	BREAK	
1030-1200	Roundtable #1: Be Contamination during D&D Work Hanford: Scott Seydel Other speakers (to be confirmed)	
1200-1330	LUNCH	
1330-1415	Update on TLV position paper	Gary Whitney, LANL, (with input from Sandia)

PRELIMINARY AGENDA (Rev. 0, 26-Jan-2010)
 Spring 2010 BHSC and Affiliated Meetings – March 15-17, 2010
 U.S. DOE Headquarters, Forrestal Building, Washington, DC (Cont.)

Tuesday, March 16 (cont.)

BHSC Meeting
 Ω *Location: Small Auditorium*

1415-1645 Subcommittee Breakouts
 Ω *Locations: Small Auditorium, 6A-092, 5A-092*

1415-1545 Individual subcommittees except Meetings/Symposia
 1545-1645 Joint meetings and Meetings/Symposia SC

Wednesday, March 17

BHSC Meeting
 Ω *Location: Small Auditorium*

0800-0830 Registration, Coffee

0830-0900 Reports (Board, BHSC Operations, Membership, etc.)

0900-0925 Business Meeting (Election of Chairperson; revised BHSC charter)

0925-0945 Brief Updates (IOCFR850, AIHA, JOWOG 30-1-1, etc.)

0945-1000 BREAK

1000-1130 Roundtable #2: BeD Measurement by Optical Fluorescence

† Use of the Automated Fluorescence
 System for Beryllium Measurement – Tom Datts, Y-12

† Measurement of BeD using wet wipes – Linda Youmans-McDonald, SRS
 Additional speakers to be confirmed

1130-1300 LUNCH

1300-1345 Med Epi Topic (to be confirmed)

1345-1500 Abstract Presentations
 Development of Hanford CBDPP – Scott Seydel
 Additional speakers to be confirmed after abstract submission deadline

1445-1500 BREAK

1500-1545 Subcommittee Reports

Risk Communication Lisa Barker

Research Needs Mike McCawley

Technical Standards/Practices/Measures David Weitzman

Medical/Epidemiological Kathleen Noonan

Meetings and Symposia Linda Youmans-McDonald

Sampling and Analysis Amy Ekechukwu

1545-1600 Wrap-up

1600 Meeting closes



The **Beryllium Health and Safety Committee (BHSC)** is committed to preventing beryllium sensitization and chronic Beryllium Disease (CBD) and other adverse health effects that can be caused by workplace exposure to beryllium.

The Mission of the BHSC will be accomplished by:

- Promoting the safe use of beryllium
- Obtaining a better understanding of exposure risks
- Improving exposure monitoring
- Fostering improved controls
- Accumulating and Disseminating information concerning beryllium process best work practices, as well as, data from the health studies concerning the hazards associated with beryllium
- Training / mentoring of beryllium health professionals
- Identifying and promoting research that has the potential to enhance or improve our worker safety programs

**BERYLLIUM HEALTH & SAFETY
COMMITTEE**

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