



**EMERGENCY
MANAGEMENT
ISSUES**

Emergency Management Issues (EMI)
Special Interest Group (SIG)
Hazards Assessment Subcommittee (HASubC)

Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

Participants:

Denny Armstrong, WSMS
Brian Baumann, Hanford
Brent Bowen, Pantex
Bud Bucci, Hanford
Howard Burgess, SRS
*Dorothy Cohen, ORISE
Dave Freshwater, NA-41
Gerry Gibeault, INL (Chairman)
*Cliff Glantz, PNNL
Vicki Locklear, NA-43
*Jeff Long, ORNL
Steve Lockett, NA-41
Phil Pfeiffer, INL
Bill Possidente, NTS
Jim Powers, NA-41
Chuck Rives, Pantex
Frank Roberto, INL
Kerry Ward, INL
Michele Wolfgram, WSMS Mid-America
Allen Woodward, LANL

* Individuals tried to call in could not connect due to technical problems.

Teleconference Highlights

I. Roll Call

Gerry Gibeault conducted a roll call and noted that seventeen (17) individuals from eight (8) DOE/NNSA locations involved with the Hazards Assessment Subcommittee (HASubC) were present. The conference call experienced telecommunications technical difficulties. Several people attempted to call in but were unable to connect to the discussion group.



Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

II. Administrative Matters

The highlights from the October 22, 2008 meeting were accepted as presented and may be posted on the HASubC website.

III. Action Item (AI) Update

Six (6) AIs are presently open and each was discussed during this teleconference.

IV. Old Business

AI 08-04: Hazards Assessment Subcommittee Website: During the previous teleconference, Gerry Gibeault indicated that much of the information on the HASubC website is dated and has contacted Cliff Glantz who modernized the SCAPA and DMCC websites for ideas on how to upgrade the HASubC website. During this teleconference, Gerry Gibeault attached an Excel spread sheet to the agenda that lists some items of concern and reported that he had been in contact with Cliff who had provided an example of how he had addressed similar concerns with the SCAPA website. Gerry proposed to work with ORISE to correct the items. Gerry would periodically update the spread sheet to show progress and that all comments and suggestions are welcome. **CONTINUING ACTIVITY**

Gerry reminded everyone that the HASubC SharePoint website is potentially a very important resource. Interested HASubC members wishing to log on to the website should contact Dorothy Cohen.

AI 08-05: Mixed hazardous waste: During the previous teleconference, Jim Jamison was asked to share his work in progress on the following issue, "*How should emergency planning hazards assessments (EPHAs) analyze the non-radiological hazardous materials component in mixed hazardous waste?*", but declined since it is still under review by his client. Jim did indicate that existing guidance needs to be clarified. Related to this effort, Jim asked that the HASubC members send e-mails to him with information on what the larger community of analysts has done relative to dealing with chemical contaminants in mixed wastes.

Although it was decided that this issue fits better with the SCAPA Source Term Working Group (STWG), the HASubC is still interested from the perspective of the committee charter's goal to help disseminate information. Michele Wolfgram, STWG chair, is in contact with Jim Jamison on this issue and said that she would communicate developments to this subcommittee as the information becomes available. **ACTIVITY CAN BE CLOSED.**



**EMERGENCY
MANAGEMENT
ISSUES**

Emergency Management Issues (EMI)
Special Interest Group (SIG)
Hazards Assessment Subcommittee (HASubC)

Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

AI 08-06: Cadmium metal: During the previous teleconference, the following matter was discussed: "*Cadmium metal has a relatively low boiling point. Should it be addressed in an EPHA, and if so, how?*" Jeff Long and Shana Peterson had both indicated that monolithic solids may be screened out as non-dispersive. However, Brad Salmonson stated his concern that, in a fire accident scenario, cadmium metal would volatilize into a cadmium oxide vapor. Brad asked if anyone had studied this issue and could recommend a reasonable Airborne Release Fraction (ARF) for this scenario. It was decided that this issue would also be addressed better by the SCAPA STWG. Michele Wolfram stated that she would add this to her list of potential activities. **ACTIVITY CAN BE CLOSED.**

AI 08-07: Authorized Type B Shipments: During the previous teleconference, Gerry Gibeault mentioned that Jeff Long had recently learned that DOT 6m drums, 20 WC containers, 21 WC containers will no longer be authorized for Type B shipments after October 1, 2008, per 69 FR 3632-3698. It is believed that this ruling should not have an adverse effect on EPHAs or hazards surveys. Discussion turned to the question as to whether Material at Risk (MAR) can be excluded from hazard assessments and is this matter a problem at other sites besides Nevada Test Site (NTS). Jim Jamison asked for documentation and Ron Beaulieu referred to the RAMPAC web page. Ron mentioned that this can be included in the MAR but then the analyst can assign a Damage Ratio (DR) of zero. There was a brief discussion on 9975 storage containers remaining intact at the Device Assembly Facility (DAF). Mike O'Keefe shared that these documents are old and Jim Jamison added that it was a legalistic approach. Gerry Gibeault mentioned that an existing FAQ, "Spent Nuclear Fuel Screening" provides some guidance on this subject. Wayne Davis shared that SRS had some drums that were going to expire and did not want to open them to recertify. Mike O'Keefe had agreed to look into this issue, but was not able to participate in this teleconference. **CONTINUING ACTIVITY.**



**EMERGENCY
MANAGEMENT
ISSUES**

**Emergency Management Issues (EMI)
Special Interest Group (SIG)
Hazards Assessment Subcommittee (HASubC)**

Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

AI 08-08: During the previous teleconference, Jim Jamison informed the HASubC that the Environmental Protection Agency (EPA) has nearly completed its program for developing Acute Exposure Guideline Limits (AEGLs). Jim is concerned that the final list of AEGLs may not include all the significant chemical hazards that are analyzed in the DOE site facility planning basis documents. Jim went on to explain the process where new chemical exposure values are requested by the EPA for development of AEGLs and he expressed his opinion that our community should at least inform the EPA if additional AEGLs are needed beyond those currently targeted by the EPA. To that end, Jim asked that the sites send him an e-mail listing potential candidates for additional AEGLs. He asked that the sites should submit planning basis chemicals that only have TEELs and no AEGLs. ANL, SRS, and NTS individuals indicated they would be providing lists of chemicals. Dave Freshwater added that EPA has recently pushed back on a request from an agency outside of the United States and is having them justify their request based on toxicity and volatility. Accordingly, to get an AEGL developed, the DOE/NNSA sites may need to provide such justification. EPA will be completing its AEGL program in about two years. All AEGLs have 70- to 100-page technical information documents to support them. NA-41's goal is to move as many chemicals as possible from TEEL status to AEGL status.

During today's teleconference, Dave Freshwater reported that Jim Jamison had not received any feedback to date that would warrant requesting new AEGLs from the EPA. Dave asked that this issue be kept open until the next teleconference to allow time for additional input and a DOE site having a need for an additional AEGL for a chemical that the EPA does currently plan should send an e-mail message describing the issue to Jim Jamison and "cc" Dave Freshwater **CONTINUING ACTIVITY.**

AI 08-09: During the previous teleconference, Reed Hodgkin presented a white paper on density and particle size assumptions for modeling radiological releases using the INL RSAC transport and dispersion code. (See "Representation of Particulate Radionuclides for RSAC Modeling in EMHAs"). While Reed's paper considers actinide and volatile particulates, its primary focus is actinides particulate filtered releases versus unfiltered releases. The white paper makes the case that using actinide density and particulate size values as input to the RSAC program has little impact on the RSAC dose projections for any volatile particulates such as cesium that may be also present in the release.



Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

Wayne Davis concurred, in principle, stating that there is no need to be concerned with cesium since there are no reactors that are operating at DOE/NNSA sites. The volatiles of interest are limited to iodine isotopes and use Nuclear Regulatory Commission (NRC) Regulatory Guide (RG) guidance. Reed is looking for a peer review of his white paper. The discussion turned to deposition velocities for HOTSPOT modeling, where the value for the public is 1 micron AMAD, and for the worker, 5 micron AMAD.

During today's teleconference, Reed's paper was briefly discussed and no one voiced any objections to the paper's conclusion and Chuck Rives replied that he thought the paper's conclusions were appropriate. Chuck went on to say that in some cases Pantex dispersion models used surrogate materials for reasons of security. Gerry Gibeault thought this practice could be of interest to the HASubC community and the STWG, in particular. Michele Wolfgram stated that she would add this to her list of potential activities. **ACTIVITY CAN BE CLOSED.**

Note: The surrogate source term approach may be worthwhile pursuing. Gerry will discuss with Chuck Rives and Michele Wolfgram in early-January 2009.

V. New Business

STWG: Michele Wolfgram briefly summarized the issues discussed in STWG teleconference held on December 16, 2008, indicating that the STWG had decided to put together a White Paper and FAQ regarding the use of the TRU standard, DOE-STD-5506, as input into EPHAs. The working group also discussed methods for screening and evaluating chemicals in materials with the objective of identifying a path forward for some of those issues. In addition, a concern that the safety basis community had some issues implementing DOE-STD-1189 Appendix B which requires use of chemical screening criteria almost identical to the criteria used in emergency preparedness documents was brought up. The STWG decided that a task team should be formed to address this issue, and more information on that will be forthcoming. Michele closed by asking that anyone interested in becoming a member of the STWG should contact her.



Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

Dilute mixture of NFPA H-3 and H-4 gases: Wayne Davis requested that a line item be added to the agenda to discuss how to address the possible conservatism associated with a dilute mixture of gases with NFPA 3 and NFPA 4 health hazard ratings. Although Wayne Davis was not able to join the teleconference, Michele Wolfgram stated that she knew of the work and thought that a draft document had been written to address the issue.

Gerry Gibeault suggested that it could be of some benefit to giving the HASubC members an opportunity to look at the draft. Michele indicated that she would take that suggestion under advisement.

2009 EMI-SIG Meeting Call for Presentation Proposals: Dave Freshwater stressed the importance of submitting presentation proposals for the 2009 Annual EMI SIG meeting by the January 5, 2009 deadline. This year, the proposal deadline also applies to subcommittee presentations. Dave requested that a note be sent to the HASubC Discussion List serv Distribution List before the Christmas and New Year holidays reminding the members that all proposals must be submitted by January 5, 2009.

Several suggestions were offered as subjects for presentations. Phil Pfeiffer said he would like to do a team presentation on EAL development and implementation at DOE sites and Chuck Rives and Michele Wolfgram offered to help Phil. Gerry Gibeault asked if there would be value in holding a panel discussion focusing on the roles and functions of the EMI SIG subcommittees and working groups. Gerry also hopes to submit a proposal for a presentation on the INL approach to developing hazards assessment and EALs. This would be a follow-up to the INL hazards survey presentations at the 2008 EMI SIG meeting. Michele suggested that the planned STWG paper and FAQ regarding the use of DOE-STD-5506 as input into EPHAs would also be a good subject for a presentation. Reactions to the presentation suggestions appeared to be favorable.

HASubC Teleconference Participation: Gerry Gibeault said that he keeps an informal record of the people and organizations that call into the HASubC teleconferences. A copy of this Excel spreadsheet is included as a matter of interest. It is not intended to be a long-term action item.

VI. Round Robin Discussion

INL: Gerry Gibeault BEA and CWI emergency management organizations officially split on December 15, 2008.



**EMERGENCY
MANAGEMENT
ISSUES**

Emergency Management Issues (EMI)
Special Interest Group (SIG)
Hazards Assessment Subcommittee (HASubC)

Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 08-05

Wednesday, December 17, 2008; 2:00 PM EST/1:00 PM CST/Noon MST/11:00 AM PST

Pantex: Chuck Rives reported that the Pantex site had completed revising its hazards survey and that work had begun on revising the hazards assessments and EALs associated with each facility.

LANL: Alan Woodward reported that LANL was looking into issues related to retrieving wastes from a landfill that had operated from 1944 through 1948. Both radiological and chemical hazardous materials were thought to have been buried in there. Alan asked if anyone knew of any information or resources that could help in characterizing buried waste in old landfills. Gerry Gibeault said that the INL had done similar work characterizing the waste in the RWMC subsurface disposal area. Gerry said that he would put Alan in contact with the people who performed the subsurface characterization at the INL.

VII. Adjournment

The teleconference was adjourned at **3:00 p.m. EST**. Gerry thanked everyone for their time and contributions.

VIII. Next HAS Conference Call

The next HASubC teleconference will be scheduled on **Wednesday, February 18, 2009** at **2:00 pm EST**.

IX. HAS Action Item (AI) Status

The color-coding system used in the teleconference highlights are as follows:

- Existing AIs that are not closed are green;
- New AIs are yellow; and,
- AIs to be closed are blue.