



Emergency Management Issues (EMI)
Special Interest Group (SIG)

Highlights

HAZARDS ASSESSMENT SUBCOMMITTEE TELECONFERENCE 07-03

Wednesday, June 27, 2007; 2:00 PM Eastern Daylight Time

Participants:

Tom Bellinger, Y-12
Lew Blumstein, NTS
Larry Campbell, Hanford
Jeng Cheng, NA-41
Dorothy Cohen, ORISE
Bob Cornish, OST
Wayne Davis, WSMS
Dave Freshwater, NA-41
Jerry Gibeault, INL
Vicki Locklear, NA-43
Jeff Long, ORNL (Chairman)
Carl Mazzola, Shaw Environmental
Mike O'Keeffe, NTS
Shana Peterson, Y-12
Jim Powers, NA-41
Judy Ryland, ORISE
Brad Salmonson, INL
Kerry Ward, INL
Michele Wolfgram, WSMS Mid-America

Teleconference Highlights

I. Roll Call

Jeff Long conducted a roll call and acknowledged that 19 individuals from seven DOE/NNSA locations involved with the Hazards Assessment Subcommittee (HAS) were present.

II. Administrative Matters

There were no administrative matters that required discussion.



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III. Action Item Update

Jeff Long led a discussion on the five active action items.

AI 06-01: During previous teleconferences, Chuck Rives discussed a power point presentation on consequence assessment that he placed on the HAS list server on January 10, 2006. The goal of this task is to make this presentation a HASub product to be used by all DOE/NNSA sites, where the target audience is professionals with minimal background in the technical topic. Chuck issued a final draft which was reviewed prior to and during the EMI SIG meeting. It was unanimously decided that this product should be issued. Dorothy Cohen will work with Chuck Rives and Jeff Long on the distribution. **ACTIVITY CAN BE CLOSED OUT.**

AI 06-02: During previous teleconferences, Chuck Rives discussed the crosswalk of all hazards assessment interfaces with the December 20, 2005 draft Emergency Management Guides (EMGs) product; a quick reference document for identifying customer expectations. Each element in the crosswalk contains a statement describing an action that needs to be performed. HAS members, including Wayne Davis, Michele Baker, Carl Mazzola, Jeff Long, Jerry Gibeault, Bob Cornish, Diane Senutovitch, and Susan Vosburg participated in this effort. Chuck indicated that although many segments have been completed, recent revisions to some of the EMGs have made some of the information obsolete. Jim Powers recommended that the HAS wait until the final version of the EMGs are issued. This was discussed during the May 7, 2007 HAS meeting. During this teleconference, it was determined to not issue this product until all five volumes of the EMGs were issued to ensure consistency with the final EMG language. **ACTIVITY PROCEEDING.**

AI 06-05: During a previous teleconference, Jeff Long led a discussion on the use of "case books" for pre-determined inputs for initial worst case plume models in the EOC/TSC during drills and exercises or actual events based on EPHA worst case scenarios. Jeff Long took an action to develop a lessons learned best practice statement on the use of case books. No further discussion during this teleconference. **ACTIVITY PROCEEDING.**



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AI 06-06: During a previous teleconference, Megan Eastment discussed the survey of hazards task that she is performing for DOE NA-41 (i.e., Support Chemical Inventory System Evaluation). The scope of the task is to: (1) produce inventory system analysis results that can be used by DOE sites to improve emergency planning processes; (2) identify lessons learned across the complex, uncovering strengths and weaknesses of systems and how sites have dealt with problems in their systems; (3) produce a set of best practices for inventory system set-up and management, as well as the adaptation of existing inventory systems and data for application to emergency management; and, (4) establish a mechanism for information sharing among field sites by identifying specific points of contact for solutions and best practices. Megan has been canvassing 15 sites and making site visits to BNL, SRS, SNL-NM, PNNL, and LANL. Information gathered from this effort will be analyzed to establish an inventory configuration best practice for all sites and a mechanism for sharing chemical inventory information. No further discussion during this teleconference. **ACTIVITY PROCEEDING.**

AI 06-07: During a previous teleconference, Gerry Gibeault inquired as to how a hazards survey can demonstrate that the site is appropriately implementing applicable federal, state, and local regulations. Gerry has developed a White Paper on this topic and will be using it as an addendum to a hazards survey that is presently in preparation. Larry Campbell shared that the list could be longer than the hazards survey itself, since there are numerous regulations, and wanted to know if it were wise to list them all. Chuck Rives said that he has developed a spreadsheet which looks like an S/RIDs list. Jeff Long indicated that this is one model for implementation. It was decided to review the document and share with the other NNSA/DOE sites. Each of these sites can then develop its own site-specific version. No further discussion during this teleconference. **ACTIVITY PROCEEDING.**

IV. New Business

AI 06-09: Jeff Long discussed the need for the HAS Charter to be revisited. Jeff will be sending the charter out for comments which will be discussed during next teleconference. **NEW ACTIVITY.**

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- Dave Freshwater reported on the status of the EMGs. Dave indicated that Volumes I-IV were through concurrence review and are being finalized by NA-41 for approval. After approval they will be placed on the web site. Volume V is under internal discussion in NA-41 and is expected to be sent to DOE/MA by the end of the week.
- Jeff asked Dorothy Cohen to send the link to the HAS website and pass code. Dorothy will send these out to the HAS membership in an e-mail.
- Larry Campbell shared an issue that Hanford is working on regarding a Leak Protection Factor (LPF) credit for a metal frame/concrete floor building that contained 55-gallon drums of low-level radioactive waste. Larry indicated that what LPF is used in Emergency Preparedness Hazard Assessments is an issue with the Defense Nuclear Facility Safety Board (DNFSB). Presently, the same Protective Actions are applied at Hanford for both in and out of the building. Based on some preliminary work, Hanford is considering using a factor of two for an LPF when the door of the building is closed. The LPF will remain at one if the door is open or not shut right away. Wayne Davis mentioned that SRS uses a LPF factor of two in similar work. Gerry Gibeault shared that the Environmental Protection Agency (EPA) Offsite Dose Manual (ODM) also uses a factor of two. Carl Mazzola suggested running the ALOHA code backwards with indoor and outdoor options using the appropriate building air exchange rate to see if a LPF of two is applicable. Larry will report back to the HAS on the results.
- Jeff Long inquired as to which models should be used for consequence assessment at close-in (i.e., near-field) distances. Presently, ORNL uses Hotspot, EPICode, ALOHA, CAPARS and NARAC. Each of these codes gives a large range of values at close-in worker distances. Carl Mazzola stated that the differences are amplified because the last two of these models are Lagrangian three-dimensional mass-consistent codes, while the first three were simple steady-state Eulerian straight-line Gaussian models. In addition, Lagrangian puff models show anomalies when a puff is traveling between a grid point. NARAC uses turbulence factors to attempt to overcome this. Carl Mazzola suggested that ORNL apply the publicly-available cost-free ARCON96 code (NUREG/CR-6331 Revision 1), which was developed by the Nuclear Regulatory Commission (NRC) for control room habitability applications which are near-field. ARCON96 has empirically-derived corrections to the horizontal and vertical turbulence parameters to account for aerodynamic building effects and plume meander based on many wind tunnel studies



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and field tracer studies. NRC has stated in Regulatory Guide 1.194 that ARCON96 can be applied to receptors as close as 10 meters (33 feet) from the release. Jeff will look into acquiring the code and applying it to these cases.

V. Round Robin Discussion

Jeff Long led the round robin discussion segment of the teleconference:

ORNL: Jeff Long stated that ORNL has completed its annual exercise and mentioned an unfortunate communication access issue with NA-41. ORNL is also involved in a second round of hazards surveys applying the DOE O 151.1C screening criteria.

Hanford: Larry Campbell indicated that Hanford is developing an EPHA for a new facility.

NTS: Mike O'Keeffe mentioned that NTS has updated their EPHAs to conform to DOE O 151.1C and the updates should be completed by August 31, 2007. The site has combined similar facilities to reduce the EPHA count to approximately 50.

INL: Gerry Gibeault reported that INL had recently been audited by HS-63 and were developing corrective actions.

SRS: Wayne Davis indicated that the SRS EPHAs were now compliant with DOE O 151.1C. Wayne additionally shared that the SRS institutional Biosafety Committee, using 10 CFR 851, has concluded that there are no select agents that require EPHAs. Wayne noted that 10 CFR 851 was more restrictive than DOE O 151.1C. A Record of Decision (ROD) has been developed and DOE approval is in process. Carl Mazzola requested that Wayne send a copy of the ROD to the SCAPA Biosafety Working Group (BWG) once it is completed.

VI. Next HAS Conference Call

Jeff Long indicated that the timing of the next HAS conference call will likely be scheduled on **Wednesday, August 15, 2007 at 2:00 pm Eastern Daylight Time.**

VII. Adjournment



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The teleconference was adjourned at **2:50 p.m. EST**. Jeff thanked everyone for their time and their contributions.

VIII. HAS Action Item (AI) Status

One new action items was opened and one action item was closed as a result of the discussions in this teleconference. There are now five open action items.

Action items are not opened for simple tasks such as transmittal of information from one party to another.

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

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