

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**Participants:**

- Denny Armstrong, LANL
- Steve Arnold, TPMC - Portsmouth
- Larry Campbell, Fluor-Hanford
- Dorothy Cohen, ORISE
- Wayne Davis, WSMS
- Al Feldt, NA-41
- Cliff Glantz, PNNL
- John Harris, OROO
- Eva Hickey, PNNL
- Jim Jamison, SAIC
- Po-Yung Lu, ORNL
- Lori Manis, ORNL
- Pete Matonis, INL
- Carl Mazzola, Shaw Environmental
- Rocky Petrocchi, WGI
- Richard Thomas, Intercet
- Gustavo Vazquez, EH-41

**Teleconference Highlights**

**I. Roll Call**

Carl Mazzola conducted a roll call and acknowledged that 17 individuals involved in the SCAPA program were present. The teleconference was called to order and Carl thanked Dorothy Cohen for setting up the teleconference call.

During the previous SCAPA conference call, 26 individuals participated in the SCAPA teleconference.

**II. Administrative Matters**

Carl Mazzola led the discussion on various SCAPA administrative matters.

**Previous Teleconference Highlights:** Carl Mazzola stated that the final highlights from the 11/29/05 SCAPA Program Teleconference 05-08 has been issued and Dorothy Cohen has posted it on the EMI SIG/SCAPA website.

**SCAPA Action Item Status:** Carl Mazzola briefly discussed the latest updated SCAPA Program Action Item (AI) listing, dated December 12, 2005. Progress on closure continues since the last teleconference and SCAPA meeting. At the time of this teleconference, 19 action items still remain open.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**AI 05-06:** The templates on SCAPA Position Paper and SCAPA Support that were provided to NA-41 are still under review. **ACTIVITY PROCEEDING.**

**AI 05-08:** Carl Mazzola reported that there will be seven sessions at the American Nuclear Society (ANS) 1<sup>st</sup> Topical Meeting on Emergency Preparedness & Response and Robotics to be held February 12-15, 2006 at Salt Lake City, UT: (1) E-01: Consequence Assessment Modeling at DOE Facilities; (2) E-02: The European ENSEMBLE Program; (3) E-03: Modeling Atmospheric Consequence Assessments in Europe; (4) National Emergency Response; (5) E-11: Emergency Planning and Response; (6) E-12: Hazard Assessment and Risk Management; and, (7) E-17: Health Effects Criteria for Hazards Assessments. SCAPA participants that have had full papers either accepted include Jim Jamison, Cliff Glantz, Doug Craig, Rocky Petrocchi, Richard Thomas, Po-Yung Lu, Rob Addis, and Chuck Hunter. Greg Martin, Eva Hickey, Cliff Glantz and Carl Mazzola will assist Jim Fairobert in chairing sessions E-11, E-12, and E-17, which will be held on February 14 and February 15. Carl Mazzola reviewed what interfaces will take place in the final month of preparation. Wayne Davis did not submit a final paper, but still has the option of presenting at the topical session, which he intends to do. Jim Jamison requested information on audiovisual guidelines which Carl Mazzola volunteered to obtain.

**AI 06-04:** Carl Mazzola briefly discussed the planned meetings at this year's EMI SIG Meeting:

- **Monday, May 1, 2006:** Hazards Assessment Working Group Meeting; DOE Meteorological Coordinating Council (DMCC) Meeting; Operational Emergencies Workshop; and, Screening Methodology Workshop;
- **Tuesday May 2, 2006 and/or Wednesday May 3, 2006:** Chemical Exposures and Chemical Mixtures Working Group Meeting; Consequence Assessment Working Group Meeting; Biosafety Working Group Meeting; and, NARAC Users Group Meeting;
- **Wednesday May 3, 2006:** Two special 90-minute SCAPA sessions; and SCAPA dinner; and,
- **Thursday, May 4, 2006:** SCAPA Meeting.

Cliff Glantz discussed the two special 90-minute SCAPA sessions. The first session addresses the NNSA/DOE site response to the newly issued Software Quality Assurance (SQA) order and guide, while the second session is focused on biosafety and includes presentations on an introduction to biosafety, overview of the Biosafety Emergency Management Guide (EMG), potential biological material releases, and protective actions in the event of a biological operational emergency. Carl Mazzola indicated that work on populating the SCAPA meeting presentation slate has begun and encouraged participation by all.

**III. SCAPA Working Group Activities**

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**Chemical Exposures Working Group (Doug Craig, Chairman)**

Rocky Petrocchi, for Doug Craig, led the discussion and provided an update on the following four Chemical Exposure Working Group action items and activities.

**AI 04-22:** This work has been absorbed into AI 05-09, and will be subsequently tracked in that AI. Five to six review iterations of the document have taken place with Po-Yung Lu and Richard Thomas providing the most recent review. Review will now be solicited from a broader base of the SCAPA membership. **ACTIVITY PROCEEDING.**

**AI 04-53:** There was no additional discussion on the upcoming session at the 2006 EMI SIG meeting regarding the effect of SQA guidance on TEEL and Chemical Mixture Methodology (CMM) software. The details of the session will emerge after the TEEL SQA effort and the updated TEEL methodology documentation has been essentially completed. It is possible that these may not be completed in time to have a session, but the material can be covered within the purview of the SCAPA meeting. **ACTIVITY PROCEEDING.**

**AI 05-03:** Work on developing TEEL derivation documentation and traceability as part of SQA continues. An evaluation performed by a PNNL intern established that the TEEL logic was functioning and performing properly, but the work also revealed that the TEEL software is more complex than previously thought with a large number of macros to be documented and tested. Therefore, a procedure for updating this product and a software custodian are both needed. Doug Craig and Ray Lux have also performed an independent review of the TEEL methodology macros. ATL International is assisting in defining the next phase associated with the TEEL SQA, in conjunction with its efforts on the TEEL derivation documentation. **ACTIVITY PROCEEDING.**

**AI 05-10:** The Revision 22 TEEL effort for almost 400 new chemicals is progressing. These new TEELs would likely not be ready for the 2006 SCAPA Meeting, but should be completed prior to the end of FY06. **ACTIVITY PROCEEDING.**

**Chemical Mixtures Working Group (Doug Craig, Chairman)**

Rocky Petrocchi led the discussion and provided an update on the following two Chemical Mixtures Working Group action items and activities.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**AI 04-23:** Rocky indicated that he is 20% complete on the development of HCNs for the approximately 300 TEEL Revision 20 new chemicals, with a goal of finishing this work in the May 2006 time frame. The updating of the older HCN 4.00 chemicals, as well as further work on the TEELs Revision 21 chemicals will commence once the Revision 20 work is completed.

**ACTIVITY PROCEEDING.**

**AI 04-44:** Rocky continues work on the HCN methodology paper. A draft should be ready for peer review by SCAPA members in March 2006. The paper will be submitted to the *Journal of Applied Toxicology* for publication once SCAPA has finished its review. Much of its text will come from the HCN Development procedure. **ACTIVITY PROCEEDING.**

**Consequence Assessment Modeling Working Group (Cliff Glantz, Chairman)**

Cliff Glantz led the discussion and provided an update on the following seven Consequence Assessment Modeling (CAM) Working Group action items and activities.

**AI 03-08:** John Nasstrom is still working to create technical documentation for the NARAC system. **ACTIVITY PROCEEDING.**

**AI 04-39:** At earlier teleconferences, there was discussion on the need to identify other issues that the CAM Working Group should address beyond the toolbox and the NARAC User's Advisory Group. The toolbox interface is a significant effort which is still dominating the work of the CAM Working Group. **ACTIVITY PROCEEDING.**

**AI 05-01:** At earlier teleconferences, there was discussion on the hazard assessment of uranium hexafluoride (UF<sub>6</sub>), which hydrolyzes into UO<sub>2</sub>F<sub>2</sub> and hydrofluoric acid (HF) in the presence of atmospheric moisture, and these hydrolysis products tend to dominate human health impacts. There is still a need on developing guidance for the DOE/NNSA community on the appropriate atmospheric transport and dispersion models to use when attempting to accurately assess the impacts of a potential UF<sub>6</sub> release. Moreover, Central Registry toolbox models (e.g., ALOHA, EPICODE) do not explicitly consider the hydrolysis of UF<sub>6</sub> and are likely to be inappropriate for assessing the phenomenology of a given release.

Jim Jamison's technical paper, that will be part of the proceedings of the 9<sup>th</sup> Emergency Preparedness & Response Topical Meeting, addresses the criteria aspects of this issue and will provide a point of reference for planning and preparedness. It will be used to advise the affected DOE/NNSA emergency management organizations on which approach is most technically sound and defensible.

Michele Baker was not available to discuss the modeling portion of the work.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**AI 05-04/06-01:** AI 05-04 has been absorbed into AI 06-01. At earlier teleconferences, Cliff Glantz indicated that the Central Registry has rolled out DOE O 414.1C and DOE G 414.1-1, but is remaining in a reactive mode, and Cliff intends to contact Debra Sparkman to determine the Central Registry's implementation plans.

Cliff indicated that the SCAPA web page has been updated to include an SQA web page that discusses recent events, provides convenient links to the DOE order and guide and other useful SQA web pages, explains the drivers and focus for SQA and additional links to the SQA work being performed at Hanford on the APGEMS code. When the SQA documentation for the APGEMS effort is finalized, it will provide a blueprint for other DOE/NNSA sites to pursue their SQA activities.

Cliff Glantz mentioned that now that the web page has been developed, the next step is to populate the toolbox. **ACTIVITY PROCEEDING.**

**AI 05-05:** At an earlier teleconference, there was significant discussion on NARAC ingestion of the ARCON96 model. Carl Mazzola had provided NUREG/CR-6331 Revision 1 which documents the ARCON96 code, as well as a 30-page White Paper that justifies its use as near as 10-meters from the release point. John Nasstrom, who was not available for this teleconference, plans to use this information and combine it with other work associated with a Department of Homeland Security (DHS) urban diffusion program that he is working with Jerry Allwine, PNNL. **ACTIVITY PROCEEDING.**

**AI 05-07:** At previous teleconferences, Wayne Davis discussed the need to determine an appropriate dose conversion factor (DCF) to use in EPHAs and consequence assessment models was discussed. Many sites use the ICRP-30 DCFs, while some use the ICRP-68/72 DCFs, while others are considering using the upcoming ICRP-90 DCFs. In a recent discussion with Ed Tupin, EPA, who will soon be issuing the draft revision to EPA-400, there is still great uncertainty as to which DCFs EPA will adopt in EPA-400. Initially, EPA was gravitating to sticking with ICRP-30, but now is considering adopting ICRP-68/72. EPA hopes to resolve this matter in a meeting this week and its decision will affect the results of this action item. Gus Vazquez volunteered to monitor the EPA decision process. Wayne Davis will be presenting at the topical meeting which will serve as the SCAPA position on this topic. **ACTIVITY PROCEEDING.**

**AI 06/02:** At an earlier teleconference, it was noted that as part of the UF<sub>6</sub> effort, Michele Baker is developing code comparisons that will support the technical needs of DOE Portsmouth. These modeling results involve the NARAC, ALOHA and RASCAL codes. Wayne Davis mentioned that all of the codes are giving different results which are confounding the issue in determining which one is the correct one to use. Carl Mazzola mentioned that model comparisons are a decades-old problem that has its roots in the failure to compare results to ground truth.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

In the process of performing this evaluation, Michele Baker also noted that NARAC does not use a straight-line Gaussian model for F-stability classes at very low wind speeds. Brenda Pobanz and Michelle Baker are separately running simulations with NARAC to determine the differences between NARAC and other codes at stable low wind speed conditions. Michele has established that F-1 meter/second is still the 95% meteorology using NARAC for Portsmouth, although the results are less conservative.

Since many of the individuals involved in this issue will be at the 9<sup>th</sup> Topical Meeting on EP & R, it was decided that an ad hoc working would meet during that meeting to enable a means to reach closure. **ACTIVITY PROCEEDING.**

**Biosafety Working Group (Cliff Glantz, Acting Chairman)**

Cliff Glantz led the discussion and provided an update on the following Biosafety Working Group activity.

**AI 06/03:** The first Biosafety Working Group Teleconference took place on December 8, 2005, in which Jim Powers discussed the draft Biosafety EMG with the working group. The next draft of this EMG will soon be issued for its second and final review, before being placed on the DOE web site for public review.

The recent report from the DOE Inspector General which concluded that biosafety activities are not well coordinated within the DOE/NNSA complex was also discussed.

Cliff mentioned that there are discussions with certain individuals to take the position of chairperson of this working group, with a goal of having a chairperson within 1-2 months. Al Feldt mentioned that all biosafety efforts should be coordinated through Jim Powers, NA-41.

**ACTIVITY PROCEEDING.**

**IV. SCAPA Web Page Report**

Cliff Glantz had mentioned earlier that the SCAPA web page now had an SQA link. A future biosafety web page is being developed.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**V. TEEL Documentation and Database Project**

**AI 05-09:** Tony Pierpoint was unavailable to report on the TEEL documentation and database project. **ACTIVITY PROCEEDING.**

**Note:** After the teleconference, Tony Pierpoint sent an e-mail with the following update: An initial draft of the TEEL publication was distributed for comments to additional members of the TEEL Advisory Group (TAG) in December, 2005. A copy of the draft was also provided to the Office of Emergency Management. The TAG expects to complete initial revisions in February 2006 for distribution and review of the publication by SCAPA.

**VI. EPA AEGLs/DHS PALs Status**

Po-Yung Lu reported on EPA/AEGL and DHS/PAL activities.

**AEGLs:** EPA has commented on the use of human subject toxicology information, leading to the postponement of the December 2005 NAC/AEGL meeting. This meeting has been rescheduled for February 2006. Accordingly, the 15 chemicals under National Academy of Sciences preparation will still not be moving forward until these issues can be resolved. A public meeting is planned for April 2006.

**PALs:** There was no further discussion on the Department of Homeland Security (DHS) Provisional Advisory Levels (PALs) for evacuation and re-entry. These are exposure-related (e.g., inhalation, oral) and are acute (less than 1 day), longer-term (1-30 days) and long-term (30 days to 2 years). The pathways are oral ingestion and inhalation. At an earlier teleconference, Po-Yung mentioned that Oak Ridge National Laboratory (ORNL) and Argonne National Laboratory (ANL) will be developing the PALs, and that a peer review committee has been established to review the draft report in the April-June 2006 timeframe.

**VII. PAGs Status**

Gustavo Vazquez reported on the two initiatives regarding PAGs.

The PAGs for Improvised Nuclear Devices (INDs) and Radiological Dispersal Devices (RDDs) were issued by DHS in a Federal Register notice on January 3, 2006 (FR 71 No. 1), as draft guidance for interim use. Andy Wallo and Steve Domotor of EH-41 were on the working group.

The EPA PAGs have been drafted, and will soon be released, now that the DHS IND/RDD PAGs have been issued.

**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**VIII. AIHA ERPGs Status**

Richard Thomas reported on the ERPG Committee activities.

The AIHA ERPG Committee held its last meeting in Hilton Head Island, SC on December 1-2, 2005, and will be holding its next meeting in Salt Lake City, UT in March 2006. AIHA will be issuing 16 new ERPGs in its 2005 manual, which will contain 7 chemicals that have been updated and 9 chemicals that are new. These will soon be posted on the AIHA web site for internal use by its membership.

Richard will provide the new ERPG information to Doug Craig for his TEEL Revision 22 efforts.

**IX. New Business**

Wayne Davis suggested a topic which falls into the purview of the dormant Source Term Working Group associated with non-respirable particles and ground shine dose impacts. It was determined that it may be a good idea to reconstitute the Source Term Working Group and set up a teleconference.

**X. Next SCAPA Conference Call**

Carl Mazzola tentatively scheduled the next SCAPA Conference call for **February 22, 2006 at 10:30 a.m.**

**XI. Adjournment**

The teleconference was adjourned at **11:38 a.m.** Carl thanked everyone for their time and their contributions.



**SCAPA PROGRAM TELECONFERENCE 06-01**  
**WEDNESDAY, JANUARY 11, 2006; 10:30 AM-11:30 AM**

**XII. SCAPA Program Action Item (AI) Status**

Based on the information exchange from this teleconference, no new AIs were closed, and no new AIs were opened.

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.

Carl Mazzola will update the action item list based on the information exchange from this conference call. The number of open action items is reduced to 17 due to absorption of two AIs into other open AIs.

Respectfully Submitted,

*Carl Mazzola*

Carl Mazzola