



Highlights DMCC Program Teleconference 11-03 July 19, 2011, 12:30 p.m. EDT

Participants

Tom Bellinger, Y-12	Carl Mazzola, Shaw Environmental
John Ciolek, AlphaTRAC	John Merrick, DOE/SR (Retired)
Kirk Clawson, ARL FRD	Jeremy Rishel, PNNL
Dorothy Cohen, ORISE	Walt Schalk, ARLSORD/NNSS
Cliff Glantz, PNNL	Gus Vazquez, HS-22
Chuck Hunter, SRNL	Tony Wegrecki, LLNL

Roll Call

Carl Mazzola conducted a roll call and acknowledged that 12 individuals involved in the EMI SIG DMCC program were present, and the third DMCC teleconference of 2011 was called to order.

Administrative Matters

Previous Teleconference Highlights and Action Items

Carl Mazzola stated that highlights of the previous teleconference have been developed and subsequently posted by ORISE on the DMCC portion of the EMI SIG website.

Status of DMCC Activities

Carl Mazzola mentioned that eight DMCC Program activities were open, and the progress on these, as appropriate, will be discussed during the teleconference. In addition, the status of the active and upcoming Assist Visits (AVs) will also be discussed.

11th EP & R Topical Meeting

Carl Mazzola provided a status to the 11th Topical Meeting on Emergency Preparedness & Response (www.EPRRS.org). The program is complete and the meeting will be held in Knoxville, TN, August 7–10, 2011. Sessions of interest to DMCC members include:

1. Software Quality Assessment for EP & R Models.
2. Hazard Assessments.
3. Severe Weather Planning for Key Facilities.
4. Consequence Assessment Modeling for EP & R.

EMI SIG 2011 Annual Meeting

Walt Schalk reviewed the three-hour DMCC meeting that was held on Monday, May 2, 2011 in Charleston, SC. The meeting, held in conjunction with the annual meeting of the EMI SIG, began at 7:30 a.m. Immediately after the end of the meeting, there was a joint DMCC/SCAPA/HASC session that focused on dispersion modeling issues. After the joint session, a special lunch and learn session was

held on protective actions in complex terrain environments. John Merrick was the DMCC meeting moderator.

Dorothy Cohen mentioned that the EMI SIG 2012 meeting will be held in Seattle, Washington.

NUMUG June 2011 Meeting

NUMUG held its 14th meeting on June 28–29, 2011 in Oak Brook, IL. DMCC members John Ciolek and Cliff Glantz made presentations at this meeting. The following is a summary agenda for the NUMUG Meeting:

1. Introductory Remarks

2. Fukushima Session

- Marc Abrams, ABS Consulting, *Correlating Fukushima Doses*
- Kevin Quinlan, US NRC, *NRC Meteorologists Role in Support of the Events in Japan during March 2011*

3. Modeling Session

- Toree Cook, Kenneth Wastrack, and Doyle Pittman (Tennessee Valley Authority), *Identifying Non-Linear Flow for Modeling of Routine Releases From TVA Nuclear Facilities*
- Ping Wan, Bechtel Power Corp. *The NEPA Requirements for Licensing a New Nuclear Power Plant in the United States.*
- John Ciolek, AlphaTRAC, Inc., *Installation of the CAPARS Emergency Response Atmospheric Modeling System for Los Alamos, New Mexico*

4. Operating Experience

- Mark Carroll, Murray and Trettel, Inc., *Installing Meteorological Monitoring Towers at Proposed and Existing Nuclear Facilities*
- Tom Bellinger, Y-12, *Evaluating the Wind Data from the Automated Surface Observing System in Oak Ridge, Tennessee – Is KOQT The Calmest Site in the US?*
- Jim Holian, SAIC, *The Surprising Impact Stuff on the Tower has on Meteorological Data*

5. Modeling/Regulations

- Ted Messier, REVA NP Inc., *Atmospheric Dispersion Modeling for Carbon-14 Emissions*
- Walter Bach and Samuel P. Williamson, Science and Technology Corporation/Federal Coordinator for Meteorology, *Uncertainty in Atmospheric Dispersion Modeling*

6. Regulations/Quality Assurance

- Brad Harvey, NRC, *Draft Regulatory Guide (DG) 1247: Design-Basis Hurricane and Hurricane Missiles for Nuclear Power Plants*

- Cliff Glantz, PNNL, ***Cyber Security Plans: Potential Impacts for Meteorology Programs***
- John Ciolek, AlphaTRAK, Inc., ***The ANSI/ANS 2.15 Standard for Modeling Routine Radiological Releases from Nuclear Facilities***

7. Reports to Members

- Matthew Parker, SRNL, ***The American Meteorology Society’s Commission on the Weather and Climate Enterprise (CWCE): Activities of Interest to NUMUG***
- Kenneth Wastrack (TVA) and John Ciolek (AlphaTRAK), ***Meteorological Monitoring System Surveys: Past, Present, and Future***

These presentations will soon be posted on the NUMUG website (www.numug.org). For more information, please contact Ed McCarthy (EFM5@pge.com) the Chair of NUMUG’s Steering Committee.

Assist Visit Status

Carl Mazzola discussed the status of the DMCC Assist Visit program. Since the last teleconference, there are no new assist visits to report, although there is continuing interest by LANL and Hanford for follow-up assist visits. Tony Wegrecki, the LLNL meteorological program manager, was on the teleconference, and early arrangements were initiated to conduct an Assist Visit at LLNL on September 13-14, 2011.

Site	DMCC Assist Visit Status
Brookhaven National Laboratory (BNL)	Joe Terranova is addressing the 17 observations and recommendations from the July 30-31, 2009 AV. BNL management have funded a 0.75-FTE position and budgeted \$240,000 for instrumentation upgrades.
Hanford	Paul Fransioli used the 28 observations and recommendations from the September 25-26, 2008 AV in planning the transition of the meteorological program from PNNL to Hanford’s Mission Support Alliance (MSA). All of the full-time meteorologists involved in the Hanford meteorological program and the met station manager will move their employment from PNNL to MSA. The program’s full-time technician will remain with PNNL and will no longer be available to support the program.
Idaho National Laboratory (INL)	Kirk Clawson is addressing the nine new observations and recommendations from the follow-up AV that was conducted on April 20-21, 2010.
Lawrence Livermore National Laboratory (LLNL)	Initial contact with the new meteorology representative, Tony Wegrecki, at LLNL was made. LLNL is the only major DOE/NNSA site that has not yet had an Assist Visit.
Los Alamos National Laboratory (LANL)	Scot Johnson postponed his request to have a follow-up AV in the summer 2010 by two years until summer 2012, which will be six years since the initial AV in August 2006.



Site	DMCC Assist Visit Status
Nevada National Security Site (NNSS)	The last AV was conducted in September 2007.
Oak Ridge National Laboratory (ORNL)	Kevin Birdwell continues to address the 23 observations and recommendations from the March 24-25, 2009 AV.
Pantex	The last AV was conducted in 1997.
Sandia National Laboratory (SNL)	The last AV was in 2003. DMCC will combine SNL with LANL in 2012 if SNL agrees to a follow-up AV. Walt Schalk is in contact with Gina Deola.
Savannah River National Laboratory (SRNL)	Chuck Hunter continues to address the 11 observations and recommendations from the June 2009 AV, which were well received by both DOE and SRNL stakeholders.
Y-12	Tom Bellinger continues to address the 24 observations and recommendations from the May 24-25, 2008 AV.

DMCC Projects

AI 06-12: Meteorological Monitoring Software (Activity proceeding)

Cliff Glantz reported that when the SQA review is completed for the consequence assessment models selected as candidates for inclusion in the SCAPA Modeling Toolbox, attention will turn to developing DMCC SQA guidance for meteorological software.

DOE O.414.1D (Activity will be closed)

DOE O414.1D has been issued, and the SCAPA SQA initiative for consequence assessment models is consistent with the new order.

AI 07-02: DOE EH-0173 Update and Draft DOE O 458.1 (Activity proceeding)

Gus Vazquez provided a status on the DOE EH-0173T update, which has become a companion to DOE O 458.1, *Radiation Protection of the Public and the Environment* that was issued in February 2011. Conforming changes were also made to M 231.1-1 and other related DOE documents. Gus made two presentations on DOE O 458.1 at the Health Physics Society meeting in June and will forward them to DMCC to place on its website.

The revised 11-chapter 1991-vintage DOE/EH-0173T guidance is currently being revised into a DOE Standard to align with the new order. Now that DOE O 458.1 is issued, the revision of DOE/EH-0173T can be completed to ensure consistency between the two documents. Gus intends to request a DMCC review of Chapter 5 and Appendix C of DOE/EH-0173T since that chapter was prepared back in 2005. Training through a webinar is being planned.

Carl Mazzola met with Jim Fairbent and Gus Vazquez on March 11, 2011 to discuss HS-22 taking a larger role in the Assist Visit program since meteorological programs is under its responsibility through



the Contractors Requirements Document of DOE O 458.1. In addition, HS management focus in FY11 and beyond is to assist the sites with its issues.

Carl and Walt will be presenting the Assist Visit program to HS-20 on August 25, 2011 with the objective of HS-20 partnering with NA-41 on further assist visits and in adopting the program to its oversight need in this area. HS-22 has previously partial-funded two assist visits (i.e., Y-12, BNL).

Status of Related Federal/Private Sector Programs

AI 04-11: Meteorological Monitoring and Meteorological Modeling Voluntary Consensus Standards (VCSs)

DMCC members are involved in the development and maintenance of eight national voluntary consensus standards (VCSs) with the American Nuclear Society (ANS) as the Standards Development Organization (SDO).

The following is a status of each of these eight standards development efforts:

ANSI/ANS-2.3	Carl Mazzola reported that the ANSI/ANS-2.3(2011) was issued April 22, 2011 and is supporting the Natural Phenomena Hazard (NPH) DOE standard (i.e., DOE-STD-1020-2011), which is presently in RevCom.	Activity Proceeding
ANSI/ANS-2.15	John Ciolek indicated that ANS-2.15 is in ANS-24 concurrence review, and NFSC consensus will follow.	Activity Proceeding
ANSI/ANS-2.16	The WG has begun efforts to develop ANS-2.16 for accident release consequence assessment with a kickoff meeting concurrent with the NUMUG meeting. This standard should be developed much faster since there are a lot of similarities with ANS-2.15. NRC made two excellent paper presentations associated with this standard at the NUMUG meeting. A needs assessment for both DOE and NRC is in progress and will be completed in August 2011.	Activity Proceeding
ANSI/ANS-2.21	ANSI/ANS-2.21 NFSC consensus review comments continue to be resolved and publication is expected by late-2011.	Activity Proceeding
ANSI/ANS-2.31	The WG has been formed and Walt Schalk and Carl Mazzola are members of the WG populated with both meteorologists and hydrologists. Kick-off meeting will be in Cleveland, OH, October 13, 2011.	Activity Proceeding
ANSI/ANS-3.8.10	The ANS-2.15 working group will begin ANS-3.8.10 for emergency response consequence assessment after it sends ANS-2.16 for consensus review. This standard should be developed much faster since there are a lot of similarities with ANS-2.16.	Activity Proceeding



ANSI/ANS-3.11	ANSI/ANS-3.11 has been reaffirmed and will not reach its 5-year sunset until the end of 2015. Matt Parker held a meeting of this WG to begin the revision process at the NUMUG meeting and the WG is looking at developing addition criteria to be applied to meteorological networks. Gus Vazquez has interest in participating in the WG.	Activity Proceeding
ANSI/ANS-58.25	The standard associated with Level III probabilistic risk assessments that address both meteorological data (Section 4.7) and atmospheric transport and diffusion models (Section 4.8) for risk-informed safety evaluations is in RISC consensus review. Many comments have been received and the standard is not expected to be issued until late-2012.	Activity Proceeding

NNSA/DOE Site Initiatives

Meteorological Monitoring Self-Assessment Tool (Activity proceeding)

The Meteorological Monitoring Self-Assessment Tool has been revised to include DOE O 458.1 in the performance criteria and to also make it consistent with the recently-issued Consequence Assessment Self-Assessment Tool. This will be posted on the DMCC website soon.

AI 09-01 Forecast Models on GPU Software (Activity proceeding)

John Ciolek reported that there has not been much activity on new Graphical Processing Unit (GPU) hardware research. Earlier, Rick Eckman had indicated that ARLFRD has submitted a proposal with Boise State University to develop a NVIDIA GPU version of HYSPLIT based on Computational Fluid Dynamics (CFD). Rick was not available to provide an update.

AI 09-08 Cyber Security White Paper (Activity proceeding)

Cliff Glantz will develop a White Paper to show how the new cyber security requirements for safety, security, and emergency preparedness systems may be applicable for use at DOE/NNSA nuclear facilities and their meteorological programs. A technical paper is being presented at the 11th EP & R Topical meeting, which will be reconfigured into the White Paper.

John Merrick mentioned that he has cybersecurity experience through WebEOC, and he and Cliff will discuss further offline.

AI 10-01 ORNL Meteorological Tower site Encroachment (Activity proceeding)

Kevin Birdwell had earlier requested available guidance that is associated with erecting new meteorological towers and what pitfalls to avoid. Projected changes to the ORNL footprint are resulting in encroachments on existing meteorological tower sites. Kevin was unavailable to update this item. Kevin was not available during this teleconference to provide an update.

DMCC Web Page Report

Cliff Glantz reported on the recent DMCC web page improvements. The DMCC Meeting Report was just approved by NA-41, and the Report and PowerPoint presentations will be posted soon. Tony Wegrecki's particulars will be added to web page under LLNL.

Cliff suggested that a History of the DMCC be developed and posted on the website, which would be beneficial for new DMCC members.

New Business

Walt Schalk mentioned an email request from Erik Kabela, SRNL, to reconfigure the annual DMCC meeting focus. The new meeting format should spend very little time on DMCC business matters and more time on technical presentations—especially from professionals who are located near the meeting venue. Since the next DMCC meeting is in Seattle, WA, NOAA Hazmat will be invited. Erik will work with Walt and Carl in developing the DMCC agenda for the May 2012 meeting.

Round Robin

Due to the length of discussion on other agenda items, there was no time available for a round robin discussion.

Next DMCC Conference Call

The next DMCC Conference call is scheduled for **Tuesday, September 20, 2011 at 12:30 p.m. EDT**. All 2011 DMCC conference calls are scheduled to be conducted on the third Tuesday of every odd month, with the exception of May, unless circumstances dictate otherwise.

About 10 days before the next teleconference, DMCC leads will be asked to provide a status on the business matters, which will be sent out with the agenda and invitation. This will allow more time for the Round Robin portion of the teleconference.

Adjournment

The teleconference adjourned at **1:33 p.m. EDT**. Carl thanked everyone for their contributions.

DMCC Program Action Item (AI) Status

Based on the information exchange from the DMCC Meeting and this teleconference, no new activities were opened, and one was closed. The number of DMCC activities is now seven.

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

- **Existing AIs that are not closed are colored green.**
- **New AIs are colored yellow.**
- **AIs to be closed are colored blue.**



**DOE Meteorological Coordinating Council
(DMCC)**

Carl Mazzola will update the DMCC action item list based on the information exchange from this conference call.

Respectfully Submitted,
Carl Mazzola