



Highlights
DOE Meteorological Coordinating Council (DMCC) Teleconference 09-03
Wednesday, July 21, 2009; 12:30 PM/11:30 AM CST/10:30 AM MST/9:30 AM PST

Participants

Tom Bellinger, BWXT Y-12
John Ciolek, Alpha-TRAC (representing SNL)
Kirk Clawson, INL
Jim Colson, DOE-ID
Dave Freshwater, DOE-NA-41
Cliff Glantz, PNNL
John Harris, DOE-OROO

Erik Kabela, SRNL
Carl Mazzola, Shaw Environmental
John Merrick, Consultant
Sabrina Tajeron, OFCM
Gustavo Vazquez, DOE-HS-21
Steve Vigeant, Shaw Environmental

I. Roll Call

Carl Mazzola conducted a roll call and acknowledged that thirteen (13) individuals involved in the DMCC program were present, and the teleconference was called to order.

II. Administrative Matters

- Previous Teleconference Highlights

Highlights of the March 17, 2009 teleconference are posted on the DMCC portion of the EMI SIG web page.

- DMCC Action Item Status

Carl indicated that an updated DMCC Program Action Item (AI) listing was sent out with the agenda. Thirteen (13) AIs are open, and the progress on these AIs will be discussed in today's conference call. The status of the assist visits (AVs) is maintained in a separate portion of that table and these will also be discussed during the teleconference. The existing DMCC AI list and AV status table will be updated on the basis of information exchange during this teleconference and from developments of other relevant events.

- DMCC 2009 Meeting Recap

Carl briefly discussed the discussions that took place during the May 4, 2009 DMCC Meeting in San Francisco, California, in which 21 individuals took part. The meeting was facilitated by John Merrick and many good presentations were made, some of which led to additional AIs. The report of the annual DMCC Meeting is complete and will be posted on the DMCC web site.



III. Assist Visit Status

Carl discussed the status of the ongoing DMCC AV program.

Y-12

Tom Bellinger addressed the 24 observations and recommendations from the May 24-25, 2009 AV and met with the ORNL AV team in March 2009. Significant progress was noted on many of the recommendations.

Hanford

A draft report was issued in December 2008 for the AV held September 25–26, 2008. After two rounds of comment resolution, agreement was reached on 28 observations and recommendations and a final report was issued in June 2009.

Oak Ridge National Laboratory (ORNL)

On March 24-25, 2009, an AV was conducted and the team developed 23 observations and recommendations. The final report was issued in June 2009.

Savannah River National Laboratory (SRNL)

From the AV meeting conducted on June 9-10, 2009, the team developed 11 observations and recommendations, all of which were well-received by both DOE and SRNL stakeholders. A draft report is in preparation and will be issued on or before August 10, 2009.

Brookhaven National Laboratory (BNL)

An AV was requested by Joe Terranova at the EMI SIG meeting after Jim Fairbent referred him to the AV Team leader. BNL formally requested an AV in June 2009 and the AV has been scheduled for July 28-29, 2009.

Lawrence Livermore National Laboratory (LLNL)

The spring 2008 LLNL downsizing resulted in the loss of its two operational meteorologists. In addition, LLNL is the only major DOE/NNSA site that has not had an AV. Contact will be made to discuss the possibility of a December 2009 AV.

Idaho National Laboratory (INL)

Kirk Clawson is developing a formal response to the 2004 AV. He intends to request a follow-up AV for mid-April 2010.



Los Alamos National Laboratory (LANL)

Scot Johnson recently indicated that he would like to have a follow-up AV in the summer 2010, which will be 4 years since the initial AV.

Pantex

Brent Bowen is conducting a self-appraisal of the Pantex site in February 2009. Carl indicated in a teleconference that the last AV at Pantex was conducted in April 1997 and that DMCC can augment this self-appraisal, if requested.

IV. DMCC Projects

AI 07-02: DOE EH-0173 Update and Draft DOE O 458.1: Gus Vazquez provided a status on the DOE EH-0173T update which will become a companion to the upcoming revision of DOE O 5400.5, *Radiation Protection of the Public and the Environment* (DOE O 458.1). Draft DOE O 458.1, which will be consistent with 10 CFR 835 and DOE O 450.1A, includes ICRP 60 dosimetry, as well as ICRP 103 terminology, is closely aligned with Integrated Safety Management System requirements and also contains requisite meteorological requirements. It is presently undergoing a directive review board briefing and is expected to go to RevCom in September 2009. After the 45–60 day RevCom review, the comments will be resolved and this order is expected to be issued in early FY 2010.

The revised eleven-chapter 1991-vintage DOE/EH-0173T guidance was updated to align with the new order and is still being held at HS-20. Once the changes to DOE O 458.1 are finalized, and it goes through RevCom, the DOE/EH-0173T revision can be completed to ensure consistency between the two documents. DOE/EH-0173T is expected to be issued 6–12 months after DOE O 458.1. Gus will request a DMCC review of Chapter 5 of DOE/EH-0173T since it was prepared in 2004. **ACTIVITY PROCEEDING.**

AI 08-03: DOE/NNSA Meteorological Program Equipment Survey: The work on the DOE/NNSA meteorological program equipment survey, jointly conducted with the Nuclear Utility Meteorological data User Group (NUMUG), is led by John Ciolek. He describes the survey as small and compact in several segments; it may be filled out in 10–15 minutes and may be used more frequently than annually. Two mini-surveys have been sent out to both NUMUG and DMCC members. John plans to have the survey completed by October 2009. **ACTIVITY PROCEEDING.**

AI 08-05: DMCC Consequence Assessment Self-Appraisal Guide: Carl indicated that the DMCC Consequence Assessment Self-Appraisal Guide is currently under NA-41 review. Dave Freshwater indicates that NA-41 comments are expected soon. **ACTIVITY PROCEEDING.**



V. DMCC Issues

AI 06-12: Cliff Glantz discussed the progress on meteorological data Software Quality Assurance (SQA). The value of this product is its availability to NNSA/DOE site managers (by request), and to commercial suppliers for integration into their new instrumentation software. The toolbox focuses on the most important SQA elements which include configuration management, users' guides and documentation, and adequate verification and validation. Cliff projects issuing a draft of the SQA guidance for DMCC review in August 2009. John Harris expressed concern that this effort should ensure that the CAPARS model, used at ORNL, will be found acceptable, since it has had extensive V&V. Cliff assured him that the SCAPA toolbox is not intended to remove existing codes from circulation, but to indicate what gaps in these codes need to be filled while they are still being used.

ACTIVITY PROCEEDING.

VI. Status of Related Federal/Private Sector Programs

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

DMCC members are involved in the development and maintenance of eight (8) national voluntary consensus standards (VCSs) with the American Nuclear Society (ANS) as the Standards Development Organization (SDO). The following presents the status of each of these 8 standards development efforts:

- **ANSI/ANS-2.15, ANSI/ANS-2.16, and ANSI/ANS-3.8.10:** John Ciolek reported that after ANSI/ANS-2.15 moves into the consensus review process, ANSI/ANS-2.16 and ANSI/ANS-3.8.10 will be developed. The ANSI/ANS-2.15 working group has done considerable reformatting and has changed the focus of the standard from descriptive to prescriptive. A draft for consensus review of ANSI/ANS-2.15 is still targeted for the October 2009 NUMUG Meeting.
- **ANSI/ANS-2.21:** Steve Vigeant, working group chair to ANSI/ANS-2.21, reported that the working group submitted the draft standard for Nuclear Facilities Standards Committee review in June 2009. It is targeted for publication by December 2009.
- **ANSI/ANS-2.3:** Carl Mazzola reported that the ANSI/ANS-2.3 working group has developed a draft of ANS-2.3, that is targeted for issuance in February 2010. This standard will support Natural Phenomena Hazard (NPH) DOE guides and standards.
- **ANSI/ANS-2.31:** A Project Initiation and Notification System form is in preparation and a working group is being formed to develop a new standard on extreme precipitation events.
- **ANSI/ANS-3.11:** Matt Parker is the new chairperson of ANSI/ANS-3.11. This standard is determined to be adequate for the present time and will be submitted for reaffirmation sometime in 2010, when it reaches its 5-year sunset. **ACTIVITY PROCEEDING.**



- **ANSI/ANS-58.25:** Carl reported on the standard associated with Level III probabilistic risk assessments. It addresses both meteorological data and atmospheric transport, and diffusion models for risk-informed safety evaluations. Carl met with the Working Group in Atlanta, Georgia, in June 2009 alongside the Annual ANS Meeting. A working group meeting is being scheduled for October 2009 at a location to be determined.

VII. NNSA/DOE Site Initiatives

AI 08-02: Ken Wastrack, TVA, has provided guidance to Scot Johnson, LANL, on sonic anemometer comparison to mechanical anemometers. **ACTIVITY CAN BE CLOSED.**

AI 09-01: John Ciolek indicated that John Mikalakis of the National Center for Atmospheric Research continues to develop the WRF model on Graphical Programming Unit (GPU) architecture. The GPU programming language is a special form of C code which the Fortran code needs to be converted to. Portland compilers are expected to alleviate this effort somewhat. **ACTIVITY PROCEEDING.**

AI 09-02: Erik Kabela indicated that there is nothing new to report on the evaluation of vector versus scalar wind speed usage. **ACTIVITY PROCEEDING.**

AI 09-03: Erik Kabela discussed some of the details about the carbon dioxide tracer experiment that SRNL is performing in conjunction with Brookhaven National Laboratory. Erik indicated that one of the nights of sampling did pick up the low level jet that was one of the key objectives of the program. **ACTIVITY PROCEEDING.**

AI 09-04: Kirk Clawson provided a link (www.noaa.inel.gov/docs/NOAATech260.pdf) to the technical report on the field study conducted for the Environmental Protection Agency. Kirk mentioned that there will be a follow-up field study in Raleigh-Durham, North Carolina, in the 2012 timeframe. **ACTIVITY CAN BE CLOSED.**

AI 09-05: Cliff mentioned that APGEMS and MetView models need to be customized for usage by other DOE/NNSA sites. They will be made available through the SCAPA toolbox. **ACTIVITY CAN BE CLOSED.**

AI 09-06: Tom mentioned that the Y-12 wet-bulb globe temperature real-time readings are now accessible through the Y-12 web site. He will make a presentation to DMCC and NUMUG members at the October 2009 NUMUG meeting on this topic. Erik invited Tom to compare Savannah River Site wet-bulb globe temperature values to his. **ACTIVITY PROCEEDING.**

AI 09-07: Erik Kabela stated that the SRS ceilometer data is posted on the SRNL web page on the visibility and cloud height link. **ACTIVITY CAN BE CLOSED.**

AI 09-08: Cliff mentioned that the NRC has delayed the issuance of regulatory guidance on cybersecurity to the October 2009 timeframe. **ACTIVITY PROCEEDING.**



VIII. DMCC Web Page and DMCC Forum Reports

DMCC Web Page: Cliff indicated that the DMCC web page was upgraded a few months ago. However, the EMI SIG web site will soon be undergoing a major overhaul, but the main content of each of the EMI SIG group pages will remain.

DMCC Forum: John stated that the DMCC Forum is presently being successfully used for the ANS-2.15 standards writing effort and continues to be available for the membership to post useful information and share ideas.

IX. New Business: Round Robin

Carl led a brief round robin discussion:

LANL: Carl shared that he, Steve Vigeant, and John Ciolek are to present a three-day consequence assessment course at LANL on August 18–20, 2009. The course is an upgraded version of the 2005 Emergency Operations Training Academy courseware and will include new modules on ALOHA and HOTSPOT.

SRNL: Erik indicated that SRNL is looking to spark interest in establishing a southeast consortium of United States ensemble weather modeling to provide bounding on uncertainties. Erik also shared about the SRNL lightning protection indicating that Voltec is not ready yet with instrumentation for the scale of operation that is desired. SRNL can obtain the same service elsewhere at a fraction of the cost. SRNL will also be looking at the lightning protection instrumentation that is used at the Kennedy Space Center.

X. Next DMCC Conference Call

The next DMCC Conference call is scheduled for **September 15, 2009**. All future 2009 DMCC conference calls will be conducted the third Tuesday of every odd month.

XI. Adjournment

The teleconference was adjourned at 1:29 PM EDT. Carl thanked everyone for their time and their contributions.



XII. DMCC Program Action Item (AI) Status

Based on the information exchange from the DMCC Meeting and this teleconference, no new AIs were opened, and four AIs were closed. This number of DMCC AIs is now nine (9).

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

- Existing AIs are colored green.
- New AIs are colored yellow.
- AIs to be closed are colored blue.

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

Respectfully Submitted,

Carl Mazzola