



**Highlights**  
**DMCC Program Teleconference 10-03**  
**Tuesday, July 20, 2010, 12:30 – 1:30 p.m. EDT**

**Participants**

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Tom Bellinger, Y-12  
Dave Freshwater, NA-41  
Cliff Glantz, PNNL  
Erik Kabela, SRNL  
Carl Mazzola, Shaw Environmental

John Merrick, DOE/SR (Retired)  
Gustavo Vazquez, DOE-HS-21  
Steve Vigeant, Shaw Environmental  
Louise Wyatt, ORISE

**Roll Call**

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Carl Mazzola conducted a roll call, acknowledged that nine individuals involved in the DMCC program were present, and called the teleconference to order.

**Administrative Matters**

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***Previous Teleconference Highlights and Action Items***

Carl stated that highlights of the previous teleconference have been developed and are posted on the DMCC portion of the EMI SIG web page.

***DMCC Action Item Status***

Carl indicated that 11 DMCC Program action items are open, and the progress on these AIs will be discussed in today's teleconference. The status of the active and upcoming assist visits (AVs) will also be discussed.

The existing DMCC AI list and assist visit status table will be updated on the basis of information exchange during this teleconference and from developments of other relevant events.

***DMCC Meeting***

Carl briefly discussed the highlights of the 17<sup>th</sup> DMCC Meeting that was held on Monday, May 3, 2010, in Las Vegas, NV. He commended John Merrick for a good job of facilitating the meeting in the short time that was available for the many topics that were discussed.



**Assist Visit Status**

Carl discussed the status of the ongoing DMCC Assist Visit (AV) program as follows:

Site	DMCC Assist Visit Status
<b>Y-12</b>	Tom Bellinger continues to address the 24 observations and recommendations from the May 24-25, 2008 AV.
<b>Hanford</b>	Will Shaw continues to address the 28 observations and recommendations from the September 25-26, 2008 AV. Program changes are slow to occur due to uncertainty about whether the Meteorological Program will be transferred to a different DOE contractor. Once this issue is settled, it is hoped that more substantive changes to the program will be implemented.
<b>Oak Ridge National Laboratory (ORNL)</b>	Kevin Birdwell continues to address the 23 observations and recommendations from the March 24-25, 2009 AV. ORNL has hired a summer intern to assist Kevin in day-to-day duties.
<b>Savannah River National Laboratory (SRNL)</b>	Erik Kabela indicated that SRNL continues to address the 11 observations and recommendations, which were well-received by both DOE and SRNL stakeholders. SRNL has acquired a research Sound Direction and Ranging (SODAR) remote instrument, which may become an operational SODAR in the future.
<b>Brookhaven National Laboratory (BNL)</b>	Joe Terranova provided comments to the draft report and indicated that BNL is addressing the 17 observations and recommendations and has funded a 0.75-FTE position and budgeted \$240,000 for instrumentation upgrades. The final report was issued in late-March 2010.
<b>Lawrence Livermore National Laboratory (LLNL)</b>	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 has been made with LLNL's Nicholas Bertoldo to provide information about the DMCC and discuss the possibility of a future AV. A site visit by Walt may be set-up in FY11.
<b>Idaho National Laboratory (INL)</b>	Kirk Clawson issued a formal response to the 2004 AV. A follow-up assist visit was conducted on April 20-21, 2010 with nine new observations and recommendations and closure of many of the 21 2004 AV observations and recommendations.
<b>Los Alamos National Laboratory (LANL)</b>	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.

## **DMCC Projects**

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### ***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 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 will also be consistent with 10 CFR 835 and DOE O 450.1A, closely aligned with Integrated Safety Management System (ISMS) requirements and containing requisite meteorological requirements. Hundreds of comments from the PSOs and field elements were received during the RevCom review, and they are almost resolved. This order is expected to be issued in late-August 2010. Earlier, DMCC reviewed the meteorological section of the draft and did not have any comments.

The revised 11-chapter 1991-vintage DOE/EH-0173T guidance has been updated to align with the new order and is still being held at HS-20. Once DOE O 458.1 is issued, the revision of DOE/EH-0173T 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. At that time, Gus will request a DMCC review of Chapter 5 of DOE/EH-0173T since it was prepared back in 2004.

### ***AI 08-03: DOE/NNSA Meteorological Program Equipment Surveys (Activity can be closed)***

All of the surveys have been completed. Carl Mazzola will request the results of the surveys from Ken Wastrack, TVA, and will forward to Walt Schalk for posting on the DMCC web page

### ***AI 08-05: DMCC Consequence Assessment Self-Appraisal Guide (Activity proceeding)***

NA-41 comments to the draft DMCC Consequence Assessment Self-Appraisal Guide were provided on January 5, 2010. Steve Vigeant and Carl Mazzola developed responses to the comments. Once the final comments are addressed, the Guide will be completed and subsequently issued to DMCC members for use in self-appraisals. No further discussion during this conference call.

## **DMCC Issues**

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### ***AI 06-12 (Activity proceeding)***

Cliff Glantz reported that the Software Quality Assurance (SQA) guidance for consequence assessment software will be posted on the SCAPA web site by July 31, 2010. Once the new SQA guidance is published, all DOE consequence assessment models will undergo a gap analyses against the guidance, with CAPARS selected as the first model. For legacy software, the gap analysis will focus on providing adequate documentation, problem reporting, configuration management, and testing files for users. It is hoped that any identified SQA gaps can be closed by the end of FY10. The expectation is that the future development and modification of consequence assessment software (including legacy software) will follow the SCAPA SQA guidance. A SCAPA modeling toolbox will be established for consequence assessment software that adheres to SCAPA's SQA guidance. Once this activity is completed, attention will turn to developing SQA guidance for meteorological software.

## **Status of Related Federal/Private Sector Programs**

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### ***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 presents the status of each of these eight standards development efforts:

- **ANSI/ANS-2.3:** Carl Mazzola reported that the ANSI/ANS-2.3 Working Group has sent the draft to NFSC for a concurrence review. This standard, when issued in late-2010, will support Natural Phenomena Hazard (NPH) DOE G 420.1A and other NPH guidance. **(Activity proceeding)**
- **ANSI/ANS-2.15, ANSI/ANS-2.16, and ANSI/ANS-3.8.10:** The ANSI/ANS-2.15 Working Group teleconferences to resolve issues associated with its first draft. John continues to develop a schedule to determine when this standard will be ready for consensus review. The working group is also looking into the terrain recirculation factor and has developed a subcommittee that is conducting a literature search. No additional progress has been made since the last teleconference, as the WG has not submitted the standard for consensus review. **(Activity proceeding)**
- **ANSI/ANS-2.21:** Steve Vigeant, Working Group Chairman, reported that ANSI/ANS-2.21 is resolving consensus review comments and publication is expected in late-2010. **(Activity proceeding)**
- **ANSI/ANS-2.31:** Carl Mazzola, who is on this Working Group, noted that a Project Initiation and Notification System (PINS) have been prepared, and a working group is being formed to develop a new standard on extreme precipitation events. No additional developments since the last teleconference. **(Activity proceeding)**
- **ANSI/ANS-3.11:** Matt Parker has developed an analysis to support a reaffirmation of ANSI/ANS-3.11 shortly since the standard reaches its five-year sunset at the end of 2010. **(Activity proceeding)**
- **ANSI/ANS-58.25:** Carl Mazzola reported on the standard associated with Level III probabilistic risk assessments that addresses both meteorological data (Section 4.7) and atmospheric transport and diffusion models (Section 4.8) for risk-informed safety evaluations. The Working Group met in San Diego, CA, on June 15-16, 2010, to resolve the remaining comments before it is submitted for consensus review. The standard is expected to be issued in early-2011. **(Activity proceeding)**

## **NNSA/DOE Site Initiatives**

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### *AI 09-01 (Activity proceeding)*

Previously, John Ciolek reported that the National Center for Atmospheric Research (NCAR) continues to develop the WRF model on Graphical Processing Unit (GPU) hardware. A new small-scale GPU card is in production and should be ready by spring 2010, which will likely change how code is parallelized. John NOAA Global Sciences Division has recently done limited work on the WRF GPU model. In addition, a Portland group has developed a compiler to recode Fortran and is developing other conversion tools. No additional discussion at this teleconference.

### *AI 09-02 (Activity can be closed)*

Erik Kabela mentioned that Chuck Hunter has issued the White Paper on the evaluation of vector versus scalar wind speed to DMCC.

### *AI 09-03 (Activity can be closed)*

Previously, Erik Kabela discussed some of the details about the carbon dioxide tracer experiment that SRNL is performing in conjunction with Brookhaven National Laboratory (BNL). SRNL has analyzed the tall tower flux covariance data and BNL has concluded its tracer gas (i.e., fluorinated hydrocarbons) analysis.

### *AI 09-08 (Activity proceeding)*

NRC issued Regulatory Guide 5.71 on cybersecurity in January 2010. Presently, NRC is correcting a few errors in the regulatory and the nuclear power plant licensees are developing cybersecurity plans for review by NRC. Once the cybersecurity plans have been prepared, Cliff Glantz will begin work on a White Paper as to how new cybersecurity requirements for safety, security, and emergency preparedness systems may affect DOE/NNSA nuclear facilities and their meteorological programs.

### *AI 10-01 (Activity proceeding)*

At a previous teleconference, Kevin Birdwell 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, but Tom Bellinger mentioned that Tower K has been hit by lightning on three separate occasions.

### *AI 10-02 (Activity proceeding)*

Kevin is studying the East Tennessee wind patterns and predictability at Oak Ridge as part of his Ph.D. research. Kirk Clawson offered to discuss similar work Roger Carter did at INL on cluster analysis and wind patterns. No further discussion at this teleconference.



## DMCC Web Page and DMCC Forum Reports

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**DMCC Web Page:** Cliff Glantz reported on the recent DMCC web page improvements and the web site is up to date.

**DMCC Forum:** John Ciolek was unavailable to give a DMCC Forum report.

## New Business: Round Robin

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Carl led a brief round robin discussion on new business items:

**WIPP:** Carl mentioned that WIPP has a new meteorological program point-of-contact, Dan Watterson.

**SRS:** Erik stated that SRNL now has automated dissemination of watches and warnings for the entire SRS reservation.

**Hanford:** Cliff indicated there is much interest in the wind speed vector versus scalar white paper that was recently developed since Hanford does not use the common vector technique. Comments on the White Paper are due to Walt Schalk by July 28, 2010.

**Y-12:** Tom opined that there is much demolition going on at Y-12 and that his program is helping this effort with automatic pager notifications when the wet-bulb globe temperature reaches 85 degrees Fahrenheit. This notification is repeated every 15 minutes. Tom is also leading an effort to have Y-12/ORNL/ETTP certified in the Storm Ready program, which is mainly for winter weather warnings. Cliff Glantz expressed interest in this.

## Next DMCC Conference Call

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The next DMCC Conference call is scheduled for **September 21, 2010**. All future 2010 DMCC conference calls will be conducted the third Tuesday of every odd month.

## Adjournment

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The teleconference was adjourned at **1:13 p.m. EDT**. Carl thanked everyone for their time and contributions.

## DMCC Program Action Item (AI) Status

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Based on the information exchange from the DMCC Meeting and this teleconference, no new AIs were opened and three AIs were closed. The number of DMCC AIs is now eight.

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.
- 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*