



SCAPA Source Term Working Group (STWG)

Highlights STWG Teleconference January 13, 2010, 2:00 p.m. EST

Participants

Dennis Armstrong, WSMS	Carl Mazzola, Shaw Environmental
Wayne Davis, WSMS	Mister McDonnell, NSTec
Dave Freshwater, NA-41	Mike O'Keefe, NSTec
Cliff Glantz, PNNL	Bill Possidente, NSTec
John Harris, DOE-ORO	Jim Powers, NA-41
Steve Homann, LLNL/NARAC	Chuck Rives, Battelle-Pantex
Steve Lockett, NA-41	Michele Wolfram, ORNL

Roll Call

Michele Wolfram conducted a roll call, acknowledged that 14 professionals were present, and called the teleconference to order.

Administrative Matters

Cliff Glantz reported that the SCAPA website is being updated, including changes to the STWG webpage. The updated website includes information on the 2010 Annual EMI SIG Meeting scheduled for the week of May 3 in Las Vegas, NV. This year, the annual SCAPA Meeting moves from its usual Thursday spot in the EMI SIG schedule to Monday afternoon. Most SCAPA working group meetings will be held on Tuesday and Wednesday. Cliff and Carl Mazzola are working on a way to share information from the working group meetings with the full SCAPA membership. SCAPA may hold a short, all-hands session late Wednesday afternoon to allow the working groups to share the results of their meetings. This session would be followed by the annual SCAPA dinner.

Old Business

STWG AI 08-01: Michele earlier sent out a paper on the DOE TRU Standard (DOE-STD-5506-2007) and its potential applications to Emergency Planning Hazards Assessments (EPHAs) for STWG review. All comments were incorporated, and the draft paper was submitted to NA-41 for review by Dr. Jim Powers. **ACTIVITY CONTINUING.**

STWG AI 08-02: Jim Jamison earlier indicated a lack of discussion on the non-radiological vs. radiological health effects issue he is working on at Hanford. He asked if other sites were addressing it, or if it is isolated to high-level tank waste EPHAs. Jim is developing a FAQ, since the guide is somewhat silent on how to address this, and will seek STWG review on his draft. Jim was unavailable on this call to provide an update. **ACTIVITY CONTINUING.**

STWG AI 09-01: Wayne Davis earlier asked for comments on an example of how Savannah River Site (SRS) handles criticality source terms and modeling. No comments were received, although Steve Homann reviewed the write-up without comments. Steve mentioned that Hotspot Version 2.07.01 will have two of the other radionuclides that Wayne identified as missing, and once the mixture Wayne presented is ratified, it will be included as a default mixture file in Hotspot. Send all comments to Wayne before the next STWG conference call, when the information will be considered final and a decision made to post the paper on the STWG webpage. **ACTIVITY CONTINUING.**

STWG AI 09-02: Earlier, Wayne Davis sent a paper written on general ball-milled Pu-238 characteristics and how SRS handles the material. Wayne related that the issue revolves around the use of non-conservative Respirable Fractions (RFs) because the characteristics of the material are unusual and not widely known. Carl Mazzola indicated that the National Aeronautical and Space Administration (NASA) does a lot of work with Pu-238 since it uses it in its Radioisotope Thermoelectric Generators (RTG) on deep space probes and large payloads to Mars. He volunteered to ask his NASA counterparts, with whom he is working on the 2011 Mars Science Laboratory (MSL) launch, for information that would be helpful. During the previous teleconference, the STWG was asked to review Wayne's document and provide comments. Wayne received some comments from Carl, who also sent the information to his interested colleagues at NASA. Send all comments to Wayne before the next STWG conference call, when the information will be considered final and a decision made to post the paper on the STWG webpage. **ACTIVITY CONTINUING.**

STWG AI 09-03: During a previous teleconference, Wayne Davis indicated that he is developing a paper discussing the use of non-respirable source terms to ensure that non-respirable dose impacts (e.g., ground shine) are being considered. Wayne submitted a presentation proposal for the EMI SIG Meeting and provided a brief description. An accompanying paper will be offered for STWG review. This issue is not limited to emergency management; the safety basis organization is also interested since they generally only model the respirable source term. Steve Homann indicated that NARAC is encountering similar concerns while they are looking at Radiological Dispersal Devices (RDDs) and the resulting ground shine. Chuck Rives said that he encountered the same type of issue during a State Department of Health exercise where they used only the respirable source term to model the event, then wanted to measure ground deposition, and couldn't understand why they weren't getting valid results. This item will be discussed in more detail at the annual STWG Meeting. **ACTIVITY CONTINUING.**

STWG AI 09-04: Earlier, Chuck Rives indicated that information sources on Leak Protection Factors (LPFs) are sparse. Since DOE G 151.1-1 gives some flexibility in the determination of LPFs, more information on this topic would be useful. The overall project goal is to compile available information on LPFs into a living document with periodic updates. Chuck found other structural aspects of a building that, although not exactly LPFs, do affect the release from a secondary barrier (e.g., evaporation rates inside a building) and submitted a presentation proposal for a panel discussion at the annual EMI SIG Meeting. The intent of this forum is for panel members to discuss how LPF data are used at their sites. This panel currently includes Phil Pfeiffer (INL), Susan Vosburg (SNL), Michele Wolfgram (ORNL), and Chuck Rives (Pantex). Chuck solicits ideas for topics to be discussed by each of the panel members. This item will be discussed in more detail at the STWG Meeting to be held at the EMI SIG conference. **ACTIVITY CONTINUING.**

STWG AI 09-05: Cliff Glantz is seeking someone at Hanford to lead an STWG effort to develop an objective statement on the use of Dose Equivalent (DE) Curies "to support emergency planning and plume modeling during 'real events.'" Brian Baumann, of the Hanford EP program, originally raised this issue and agreed to lead the activity; however, both Brian and his successor, Dan Conners, have been transferred to new assignments outside of the Hanford EP program. Hopefully Brian's replacement will accept the lead. **ACTIVITY CONTINUING.**

New Business

None.

Next SCAPA STWG Meeting

The next SCAPA STWG teleconference is scheduled for **March 10, 2010, at 2:00 p.m. EDT.**

Adjournment

The meeting adjourned at **2:30 p.m. EST.**