



**Emergency Management Issues (EMI)
Subcommittee on Consequence Assessment and
Protective Actions (SCAPA)
Source Term Working Group (STWG)**

**Highlights
STWG Meeting**

Monday, May 4, 2009; 4:30 PM Pacific Daylight Time

Participants:

Dennis Armstrong, WSMS

Brian Baumann, Hanford

Dan Dalton, NA-40

Wayne Davis, WSMS

Gerald Gibeault, INL

Cliff Glantz, PNNL

Eva Hickey, PNNL

Steve Homann, LLNL NARAC

Jim Jamison, SAIC

April Jivelekas, WSMS Mid-America

Thad Kedzierski, LLNL

Pete LaCurtis, LLNL

Greg Martin, SAIC

Mister McDonnell, NTS/NSTec

John Nasstrom, LLNL NARAC

Brenda Pobanz, LLNL NARAC

Bill Possidente, NTS/NSTec

Jim Powers, NA-41

Chuck Rives, Pantex

Melissa Thornton, WSMS Mid-America

Igor Tregub, NNSA

Michele Wolfgram, WSMS Mid-America

Ken Young, LLNL

I. Roll Call

Michele Wolfgram conducted a roll call and acknowledged that over 30 individuals were present.

Michele Wolfgram led a STWG discussion that included the following topics:

II. Administrative Matters

1. Listserv Issues: It is believed that the listserv issues have been resolved. Michele will send an email both to the listserv and to the email addresses of the STWG members to ensure all members receive listserv correspondence.
2. STWG & HASubC Interaction: The "division of duties" and interaction between the STWG and HASubC was discussed and Michele asked if anyone had any ideas on how to better determine what topics belong in which group. One example discussed was the issue on screening/evaluating cadmium. It was decided that the determination on whether it should be screened in or not belonged in the HASubC; however, if they determined it can not be screened, the topic will be passed on to the STWG to determine how to evaluate it.



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Questions were posed on whether the STWG should look at issues that are specific to one particular site or if it should only investigate items that relate across the complex. It was noted that a lot of the same people are involved with both the STWG and the HASubC. The working group agreed that there needs to be a group looking at topics that the HASubC is not working on.

It was agreed that the STWG serves a specific, useful purpose and there were no further suggestions on how to better ensure that the STWG and HASubC do not cover the same items. Michele agreed to continue to be involved in both groups to prevent as much overlap as possible.

II. Old Business

1. **STWG AI 08-01**—DOE TRU Standard: Michele gave a short presentation showing the results of her study of the DOE TRU Standard (DOE-STD-5506-2007) and the potential applications to EPHAs. She agreed to send the paper out for review and the group agreed that NA-41 will decide how it will be published/used (e.g., SCAPA product, official white paper). Some questions involved whether the DOE TRU Standard should be used as an additional ARF/RF reference and Michele responded that all of the ARF/RFs were taken from DOE-HDBK-3010. Another question was raised about how it could be applied in consequence assessment and whether it is a practical tool for a responder to use. A suggestion was provided that all of the ST factors could be combined into one factor that could be used during consequence assessment to make the calculation easier.
2. **STWG AI 08-02**—Non-radiological vs. Radiological Health Effects: Jim Jamison gave a summary of the presentation he gave at the HASubC and the discussion was opened up on how the STWG should proceed on this topic. Wayne Davis offered to share a paper on chemical screening of High Level Waste that he wrote for SRS. It was determined that the potential for a spray release is one of the major hurdles and without the spray release the chemicals would be considered non-dispersible. The decision was made to form a small task group to look at the characteristics of liquid waste that would lead to a spray release in order to determine when it should be evaluated. Jim Jamison volunteered to lead the task group and will be developing a “mission statement” to explain the purpose of the group and to solicit other members’ involvement.



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II. New Business

The group discussed generally how it wanted to handle new business. The decision was made that the person suggesting the business would develop a short paragraph describing the objective of the item and send it out to the group to solicit interested parties to develop a path forward. The following items were brought up as possible issues to investigate in the future:

1. Criticality ST: Wayne Davis suggested investigating Criticality STs and possibly coming up with a standard set of parameters. Items in questions include the release duration and STs for fuel melting. Wayne will develop the objective for distribution.
2. Ball-milled Pu-238: Wayne Davis questioned how many people dealt with ball-milled Pu-238 and how they were handling it. He discussed the fact that he discovered that the RF used in some Safety Basis documents is non-conservative and suggested the group develop a recommendation. Wayne will develop the objective for distribution.
3. Respirable vs. Non-respirable STs: Wayne Davis expressed concern that many people are only modeling the respirable ST and are not accounting for groundshine when that could contribute to the total dose. Wayne suggested the group issue some guidance on specifying the RF in the model as opposed to calculating the ST outside the model. Wayne will develop the objective for distribution.
4. LPFs: Chuck Rives expressed an interest in performing a literature search and/or developing a reference for generic Leak Path Factors (LPFs) for ordinary building types. Chuck will develop the objective for distribution.
5. DE Curies: Brian Baumann noted EPHAs build on Documented Safety Analyses (DSA) and therefore may use DE Curies. EPHAs are the basis for plume dispersion calculations following emergencies. The Working Group should determine if there are issues where the use of DE Curie Source Terms does not adequately support plume dispersion calculations during emergencies. Brian will develop the objective for distribution.



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III. Next SCAPA STWG Meeting

Michele Wolfgram indicated that next SCAPA STWG teleconference is scheduled for July 8, 2009. The next SCAPA STWG meeting is scheduled for **Monday, May 3, 2010** during the next EMI-SIG meeting in an east coast city.

IV. Adjournment

The meeting was adjourned at **5:30 p.m. PDT**. Michele thanked everyone for their time and their contributions.