

Highlights

MEETING OF THE SOURCE TERM WORKING GROUP

TUESDAY May 5, 2008; 4:00 PM Eastern Daylight Time

Participants:

Wayne Davis, WSMS

Cliff Glantz, PNNL

April Javilakis, WSMS Mid-America

Carl Mazzola, Shaw Environmental

Bill Possidente, NSTec

Ken Young, LLNL

Dave Freshwater, NA-41

Jim Jamison, SAIC

Greg Martin, SAIC

Rocky Petrocchi, URS

Michele Wolfgram, WSMS Mid-America

Meeting Highlights

I. Roll Call

Carl Mazzola conducted a roll call and acknowledged that eleven (11) individuals were present.

II. Discussion

Carl Mazzola led the discussion which included the following topics:

1. **DOE TRU Standard (DOE STD-5506):** Michele Wolfgram discussed the recently issued DOE standard that is used for transuranic (TRU) waste assessments, DOE STD-5506. Since it contains guidance on the calculation of Damage Ratios (DRs) and Leak Protection factors (LPFs), Michele thought that it may be applicable to other applications including EPHAs. Michele will contact the authors of the standard to determine if this is the case (**new AI**).
2. **Non-radiological Hazard Assessments:** Jim Jamison turned the discussion to developing EPHAs for non-radiological hazards associated with TRU waste. Ken Young stated that Jofu Mishima has issued a supplement to assist in the calculation of Airborne Release Fractions (ARFs) for exposures to beryllium; which is very dependent on the geometry of the material. Jim stated that guidance is needed for halogenated hydrocarbons, and metals such as cadmium, beryllium, lead, and silver. Wayne Davis shared that Savannah River Site (SRS) screens these on dispersability and common public use, and refers to additional guidance in NFPA 704 Levels 3 and 4 for chemicals that exceed laboratory scale. Jim Jamison mentioned that there are 670 constituents in the Hanford HLW tanks so that the problem can be an enormous undertaking. Ken Young mentioned that there are different types of consequences for radiological and

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chemical releases and therefore there should be different types of evaluations performed on each type of chemical. Wayne Davis opined that DOE STD-1136 can be used for uranium compound evaluations, as solubility is an important parameter for these compounds. Wayne Davis also stated that there is a non-respirable portion of the source term that is sometimes not considered, may be bounding since ground shine needs to be considered for gamma-emitting radionuclides. He recommended using HOTSPOT to calculate the source term rather than feeding a source term into HOTSPOT and running an EPHA that way. Jim Jamison concluded that there must be a defensible position that radiological impacts bound all chemical impacts in mixed wastes or mixed TRU wastes or that all chemical constituents within these waste forms need to be screened. Wayne Davis (lead), Jim Jameson, and Michele Wolfgram will develop a White Paper on how to approach HLW screening looking at what chemical concentrations are limiting (**new AI**).

3. **STWG Chairperson:** Michele Wolfgram accepted the responsibility of chairing the STWG.

III. Next SCAPA STWG Meeting

Carl Mazzola indicated that next SCAPA STWG teleconference has not yet been scheduled. The next SCAPA STWG meeting is scheduled for **Monday, May 4, 2009** during the next EMI-SIG meeting in a west coast city.

IV. Adjournment

The meeting was adjourned at **5:00 p.m. EDT**. Carl and Michele thanked everyone for their time and their contributions.