Highlights
HotSpot/EPIcode Deposition Velocity Project Teleconference
Wednesday, February 23, 2012; 1:00 p.m. EST

Participants

Denny Armstrong, SRS
Bud Bucci, Hanford MSA
Dave Freshwater, NA-41
Bill Gentile, LASO
Jeremy Graves, URS SMS Oak Riddge
Courtney Haggard, URS SMS Oak Ridge
Jon Nelson, SNL
Erica Ortega, SNL
Mike O'Keeffe, NNSS
Shana Peterson, Y-12
Bill Possidente, NNSS
Jim Powers, NA-41
Josh Price, URS SMS
Chuck Rives, Pantex
Brad Salmonson, INL
Joe Terranova, BNL
Melissa Thornton, URS SMS Oak Ridge
Kerry Ward, INL
Michele Wolfgram, ORNL

Roll Call and Welcome

Michele Wolfgram welcomed everyone to the teleconference and conducted a roll call noting that 19 individuals from nine DOE/NNSA locations were present.

Background

At the February 15, 2012, HASC teleconference, Michele stated that the HotSpot and EPIcode Deposition Velocity Project is populated with about 20 individuals from Hazards Assessment Subcommittee (HASC) and the Subcommittee on Consequence Assessment and Protective Actions (SCAPA) Source Term Working Group (STWG), with SCAPA Consequence Assessment Modeling Working Group (CAMWG) also participating in this effort. The purpose and objectives of this joint study were to be discussed during a special February 23, 2012 conference call to obtain agreement on the objective statement, further scope out this task, and identify specific actions to break out for subgroup tasking.

Discussion

Michele discussed the objective statement for the group project and solicited feedback from those present on the teleconference. She explained that the group is not trying to contradict any of the conclusions of HSS Safety Bulletin 2011-02 on deposition velocity, nor is it attempting to determine one specific set of values for all of the sites to use. Bud Bucci commented that he agreed with the objective statement and indicated that it was well-written. There were no objections to the objective statement, as written, and it received unanimous approval.

Denny Armstrong mentioned that the Safety Bulletin suggests the use of GENII to determine deposition velocity and questioned whether the group would be looking into all of the parameters that go into calculating deposition velocity. Michele asked Denny to identify some

of the parameters in question, and he discussed surface roughness, minimum wind speed, etc. He then raised a question on how those factors should be determined, what set of coefficients should be used, and how far out surface roughness should be evaluated. Michele noted that the coefficients used should be consistent with HotSpot and EPIcode. Chuck Rives added that he has a reference that has a good visual representation of the factors that impact deposition velocity.

Mike O'Keeffe mentioned that the product of the group should be similar to the HSS Safety Bulletin to provide a set of default values and to include a methodology for determining site-specific values. Mike also added that it might be useful to look at the input parameters into NARAC to provide a consistent approach. Michele discussed that the group should probably also provide guidance on how a calculated deposition velocity should be implemented in HotSpot and EPIcode to ensure that factors aren't overestimated or underestimated.

An action to define deposition velocity and the parameters that factor into the determination of deposition velocity was needed to ensure that there is a common starting point for discussions on this topic. Denny Armstrong and Chuck Rives agreed to work together to put together a short description that can be sent to the group for review; **ACTION 1**.

It was also determined that a discussion regarding the differences between Emergency Planning Hazard Assessments (EPHAs) and Documented Safety Analyses (DSAs) was required to explain why the deposition velocity approach may vary between the two assessments. Michele agreed to put together this description, and Bud Bucci agreed to perform the initial review before sending it out to the working group for a wider review; **ACTION 2**.

There was additional discussion regarding why a deposition velocity value may be different between the DSA and EPHA, as questioned by Mike O'Keeffe. Michele explained that in her experience DSA calculations are performed very conservatively in order to meet the needs and objectives of that analysis (i.e., designing controls), whereas the EPHA analysis is intended to be more realistic because it directly correlates to the scope of an emergency preparedness program leading to emergency response actions that may be taken (e.g., difference between evacuating 30 people or 200 people). Michele summarized that if the calculations of deposition velocity were performed to determine the actual value, then they should be the same in both documents. However, the DSA analysis is usually only refined to the point that the controls identified are acceptable and meet 10 CFR 830. Jon Nelson agreed with Michele's point of view and expressed that he had similar experiences with DSA analyses.

It was determined that the two identified actions were sufficient for this stage in the process and additional actions may be defined later as the work matures.

Adjournment

Michele adjourned the teleconference at **1:30 p.m.** and stated that she would send an e-mail notifying participants of the next teleconference.