HLWYM HEmails

From: Roland Benke [rbenke@gargol.cnwra.swri.edu]
Sent: Friday, December 15, 2000 5:28 PM
To: plaplante@swri.edu; jweldy@swri.edu; 'Michael Smith'
Subject: RE: Opinions on DOE Approach

Pat,

I agree that you should raise the issue.
Just to add a little ... I think that DOE should address (where possible) how appropriate the original data sources are for the Yucca Mountain site (but sometimes lack of data necessitates using what is available).

Roland

-----Original Message-----
From: Patrick LaPlante [mailto:plaplante@swri.edu]
Sent: Friday, December 15, 2000 4:11 PM
To: jweldy@swri.edu; 'Michael Smith'; 'Roland Benke (rbenke)'
Subject: RE: Opinions on DOE Approach

Thanks for the input. I agree w/ your points. On the latter one regarding the scale factors it is an issue, but short of having them modify the GENII code, I'm not sure how to resolve it. In our 'great wisdom', we decided not to implement full sampling of transfer factors (bang for the buck issue)...although I recognize that DOE has a greater regulatory burden and perhaps they should go the extra mile. Surely something to ponder over the next few days.

Pat

-----Original Message-----
From: James Weldy [mailto:jweldy@swri.edu]
Sent: Friday, December 15, 2000 5:00 PM
To: plaplante@swri.edu; 'Michael Smith'; 'Roland Benke (rbenke)'
Subject: RE: Opinions on DOE Approach

I tend to agree with you that this is an issue. They should list all of the original sources of data (probably only a few) and use these original sources as the basis for their parameters. They could then demonstrate that it is a reasonable selection by comparing the values to those that other people doing similar analyses have used.

A secondary issue associated with these parameters is that the GENII-S input parameters that are located in data files (such as the soil/plant and feed/animal transfer factors) cannot be sampled directly. Only a single scaling factor can be sampled, which may or may not actually represent the uncertainty associated with all of these parameters (may be too large for some and too small for others). I'm not sure if DOE talks about how well these scaling factor ranges actually represent the uncertainty in these data values.

James

-----Original Message-----
From: Patrick LaPlante [mailto:plaplante@swri.edu]
Sent: Friday, December 15, 2000 3:34 PM
To: James Weldy (jweldy); Michael Smith; Roland Benke (rbenke)
Subject: Opinions on DOE Approach

DOE's approach for selecting soil/plant and feed/animal transfer factors is sort of strange and I'm on the fence as to whether or not to raise a comment. Thus, I thought I would run it by you folks to see what you think.

In a nutshell, DOE has reviewed a number (say 8-10) technical reports that use or document such factors and tries to reach a consensus on what generic values are most favored by the technical community by doing their review.
They provide clear selection criteria that favor selection of those factors that appear most commonly in all the reports reviewed, those that appear common in most recent reports, or if those criteria don't apply they rank all and select a median value or if very little data they go with the default value in GENII code. One problem is that some of the reports reviewed are not the original data sources so there is some 'double counting' of sources that are popular (for example they cite our parameter report and IAEA, 1994 and our report uses the IAEA values). Thus, the selection becomes more of a popularity contest/expert elicitation style of selection rather than a more technically bases approach (e.g., a more technical approach might list all unique original data sources and choose the median or perhaps select the most recent summary by the most technically proficient resource with the idea that they represent the most current data and also apply a consistent approach to lit review and value selection).
Certainly there is some value in showing that the technical community favors some set of factors, but it seems to ignore the details of why they were selected by each author (reasons may not be appropriate for YM) and leads to sort of a mixed bag (factor for vegetables selected from one report...factor for fruit selected from another report which may have used different selection criteria).

I would be interested in your opinion as to whether you think the DOE approach as explained above appears to present a problem worth commenting on or not. The transfer factors for some of the important radionuclides are important to the dose calculation and some of DOE values vary by a factor of 10 from our values so it appears this is an area where some emphasis in the review is appropriate. If you have no opinions...that's ok too.

Thanks
Pat

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 1882

Mail Envelope Properties (rbenke@gargol.cnwra.swri.edu20060208141538)

Subject: RE: Opinions on DOE Approach
Sent Date: 12/15/2000 5:27:56 PM
Received Date: 2/8/2006 2:15:38 PM
From: Roland Benke

Created By: rbenke@gargol.cnwra.swri.edu

Recipients:
"plaplante@swri.edu" <plaplante@swri.edu>
Tracking Status: None
"jweldy@swri.edu" <jweldy@swri.edu>
Tracking Status: None
"'Michael Smith'" <masmith@gargol.cnwra.swri.edu>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	4616	2/8/2006 2:15:38 PM

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received: