HLWYM HEmails

From: John Trapp [JST@nrc.gov]
Sent: Tuesday, July 24, 2007 8:12 AM
To: Debashis Basu; John Stamatkos; Donald Hooper; Brittain Hill; James Rubenstone; Keith Compton; nadams@swri.org
Cc: Randall Fedors
Subject: first cut at TDIPs
Attachments: TDIP first look.wpd

As I state in the attached write-up I lost a lot of time due to a fire alarm, so didn't get into the TDIPs to the degree I wanted. However:

They need to be reviewed, and I would say now, not later.

There is a big problem in finding the data and the reference to DTNs etc, rather then giveing you the data is going to be a problem. I asked several questions and was told that Randy Fedors knew more about getting into the stuff then any one at the LSO. This drilling down, slicing, actually getting to the bottom of this is going to be a pain.

Anyway, I have attached by first cut stuff for reference.

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 1328

Mail Envelope Properties (s6a5b466.067)

Subject: first cut at TDIPs
Sent Date: 7/24/2007 8:11:54 AM
Received Date: 7/24/2007 8:13:07 AM
From: John Trapp

Created By: JST@nrc.gov

Recipients:
"Randall Fedors" <Randall.Fedors@nrc.gov>
Tracking Status: None
"Debashis Basu" <dbasu@cnwra.swri.edu>
Tracking Status: None
"John Stamatkos" <jstam@cnwra.swri.edu>
Tracking Status: None
"Donald Hooper" <dhooper@cnwra.swri.edu>
Tracking Status: None
"Brittain Hill" <Brittain.Hill@nrc.gov>
Tracking Status: None
"James Rubenstone" <James.Rubenstone@nrc.gov>
Tracking Status: None
"Keith Compton" <Keith.Compton@nrc.gov>
Tracking Status: None
"nadams@swri.org" <nadams@swri.org>
Tracking Status: None

Post Office: NRNWMS05.NRC.GOV

Files	**Size**	**Date & Time**
MESSAGE	616	7/24/2007 8:13:07 AM
TDIP first look.wpd	6918	

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

Start on TDIPs

Spent a couple of hours yesterday looking at 4 disruptive events TDIPS, i.e. TDR-TDIP-DE-000002, (IA Probability), 000003 (Ashplume), 000004 (number of waste packages hit), and 000005 (Tephra redistribution). Don't get caught at the LSO when the fire alarm goes off. Lost over an hour, so didn't get anywhere into what I wanted to do, but here goes.

In general, the TDIPs look like AMRs. There is some procedure which allows them to be done faster and put into main stream, but layout, etc is an AMR layout.

At this stage the level of detail varies greatly. Probability was very brief, which ashplume and redistribution were quite detailed.

In many ways, obfuscation appears to be the name of the game. There are references to various DTNs, as being the source of the data, , so going to have to go down a level of detail from what is in the TDIPs and AMRs. DTN 179987 (LA0612DK831811.001) is a major player.

Bottom lines

Probability.

There are going with the 1996 stuff, and admit that there is the PVHA update, but that is it. They reference the 2004 Characterize framework for IA as the document containing major data.

Waste Packages hit
Assumption in intrusive is no bulkheads, etc, so it ends up being either or. No waste packages damaged or all of them. They point out this is a major change, and if you look at what they are presenting it does not appear that this is going to stay that way. I expect this to be more of a CDF as they go along.

In extrusive they talk about the cookie cutter approach and have 1 conduit as .85, 2 as .10 and 3 as .05. This is a change. An even bigger change is that the conduit diameter has a median diameter of 15 meters, 95th as 21 and lower as 1 (there is a "buffer" so these numbers are slightly higher in reality). Bottom line here is that the median number of waste packages hit is "zero".

This one is almost a straight geometric argument, but is going to be a major player that has to be reviewed in detain. Goes back to having to review the DTNs, etc to know what is really going on.

Ashplume and Tephra

These two are much more developed then the other two and carry the FAR stuff out a lot more then I have seen, even from the Science and Tech that we have seen but haven't been given officially. There appears to be even more on the discussion of grain size (saw this change before) . Grinding came down to lower limit of .0001 cm so argument would be not too much effect on dose. Unaltered ended up as .002 cm ranging from .0001 to .05 cm, dry oxidation, .00025, ranging from .00005 to .0005cm and wet or corrosive as .0002 ranging from .00005 to .001 cm. So, what gets available for respiration?

I just had time to skim the bulk of these two, but realize that some major changes are going on.

There is a lot of stuff on FAR The official AMR is due out in November (I think), but time should be spent reviewing these two TDIPs prior. They state that this will all be in the AMR. I think they are getting close to a final document and the info is available in Las Vegas as well as here. Going to go back in a couple of weeks, but that is it for now. Would suggest that someone from the CNWRA might want to go on down to Las Vegas and spend a day or two reviewing.