HLWYM HEmails

From: Nancy Adams
Sent: Thursday, February 14, 2008 1:26 PM
To: Jack Guttmann
Subject: DIRECT1 AMRs
Attachments: DIRECT1 AMR flowchart.ppt

As I predicted, I found it within a minute of our phone conversation. Again, this is essentially part of the notes I made for myself in preparation for the Appendix 7 meeting in January; it wasn't prepared as (nor intended to be) any sort of formal document.

Nancy Adams

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 1002

Mail Envelope Properties (nadams@cnwra.swri.edu20080214132500)

Subject: DIRECT1 AMRs
Sent Date: 2/14/2008 1:25:40 PM
Received Date: 2/14/2008 1:25:00 PM
From: Nancy Adams

Created By: nadams@cnwra.swri.edu

Recipients:
"Jack Guttmann" <Jack.Guttmann@nrc.gov>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	281	2/14/2008 1:25:00 PM
DIRECT1 AMR flowchart.ppt	44538	

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

AMR: Number of WPs Hit by Igneous Events (2007)

-calculations of the # of WPs that could be damaged in a potential future igneous event; includes disruption from an intrusion and from an eruption; also supports the evaluation of the potential consequences as part of the TSPA.

TDIP: Number of WPs Hit by Igneous Events [TDR-TDIP-DE-000004 Rev 00, April 2007]

•Assumptions
•Conduit formation not influenced by repository
•Appendices E and G

•Appendix G – "Halo effect"

AMR: Characterize Eruptive Processes at Yucca Mountain, Nevada (2007)

-information about natural volcanic systems and the parameters that can be used to model their behavior (value distributions, e.g., conduit diameter, dike length, etc.).

AMR: Characterize Framework for Igneous Activity at Yucca Mountain, Nevada (2004)

-PVHA 1996 results (probability) updated for repository footprint proposed in 2003

TDIP: Igneous Event Probability [TDR-TDIP-DE-000002 Rev 00A, February 2007]

AMR: Dike/Drift Interactions (2007)

-model components and analyses that represent propagation of magma-filled dike migrating upward, intersection of dike with drift, and environment in drift after intrusion (nature and extent of damage to WPs)

-supports TSPA igneous intrusion-groundwater transport model case, FEP screening, input to the PVHA-U, and KTI 2.18, 2.20.

TDIP: Dike/Drift Interactions [TDR-TDIP-DE-000001 Rev 00F, June 2007]

AMR: Magma Dynamics at Yucca Mountain, Nevada (2005)

-combo of ChEP 2004 (field sites) and Dike/Drift 2004 (multiphase flow)

-response to KTI 2.18

UZ? Contact metamorphic aureole and heat/gas flow

AMR: Igneous Intrusive Impacts on Waste Packages and Waste Forms (2004) ***?? LEAST RELEVANT ??***

-used in TSPA-LA for several parameters including 1) temperature of magma (used for the temperature of the waste form after an intrusion) 2) temperature increase in Zone 2 due to intrusion to evaluate impact to Zone 2 waste packages; 3) effects of exsolved gases reaching Zone 2 to evaluate impact to Zone 2 waste packages; and 4) pH and ionic strength of water reacted with basalt.

-supports DOE response to KTI 2.18, 2.19, 2.20

KTI Guide
2.18 Dogleg
2.19 Gas flow permeabilities
2.20 Transgranular fracturing