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YUCCA MOUNTAIN - REQUEST FOR ADDITIONAL INFORMATION - VOLUME 3 -
POSTCLOSURE CHAPTER 2.2.1.3.5, 1st SET - CLIMATE AND INFILTRATION -
(DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT SECTION 2.3.1)

Reference: Ltr, Sulima to Williams, dtd 5/27/2009, "Yucca Mountain – Request for Additional Information – Volume 3 – Postclosure Chapter 2.2.1.3.5, 1st Set – Climate and Infiltration – (Department of Energy's Safety Analysis Report Section 2.3.1)"

The purpose of this letter is to transmit the U.S. Department of Energy's (DOE) responses to the Requests for Additional Information (RAI) identified in the above-referenced letter regarding DOE's Safety Analysis Report Section 2.3.1. Each RAI response is provided as a separate enclosure.

Most of the DOE references cited in the RAI responses have previously been provided with the License Application (LA), the LA update, or as part of previous RAI responses. The references provided with previous RAI responses are identified within the enclosed response reference sections. Any DOE references cited in the RAI responses, which have not been previously provided to the Nuclear Regulatory Commission (NRC), are included with this submittal.

Per NRC's request in RAI Number 2, provided as Enclosures 9 through 20 to this letter, are the text files containing the net infiltration values along with spatial coordinates for the four uncertainty maps and three climate states. Because it was not practical to reproduce the content of these files within the RAI responses (it would take close to 30,000 pages), the files are not compliant with Electronic Information Exchange guidance. However, the files are usable to the Office of Nuclear Material Safety and Safeguards staff and contractors. The files will be made available to the public upon request.

There are no commitments in the enclosed RAI responses. If you have any questions regarding this letter, please contact me at (202) 586-9620, or by email to jeff.williams@rw.doe.gov.

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OTM: CJM-0840



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Enclosures (25):

Enclosures 1 through 8:

1. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 2
2. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 4
3. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 5
4. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 6
5. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 7
6. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 8
7. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 3
8. Response to RAI Volume 3, Chapter 2.2.1.3.5, Set 1, Number 1
9. text file *PD_R2_V18_Infiltration.txt*
10. text file *PD_R1_V13_Infiltration.txt*
11. text file: *PD_R1_V18_Infiltration.txt*
12. text file: *PD_R2_V17_Infiltration.txt*
13. text file: *MO_R1_V19_Infiltration.txt*
14. text file *MO_R1_V17_Infiltration.txt*
15. text file *MO_R1_V06_Infiltration.txt*
16. text file *MO_R2_V15_Infiltration.txt*
17. text file *GT_R1_V01_Infiltration.txt*
18. text file *GT_R1_V02_Infiltration.txt*
19. text file *GT_R2_V16_Infiltration.txt*
20. text file *GT_R1_V05_Infiltration.txt*
21. BSC (Bechtel SAIC Company) 2004. *Simulation of Net Infiltration for Present-Day and Potential Future Climates*. MDL-NBS-HS-000023 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20041109.0004.
22. BSC 2006. *Data Analysis for Infiltration Modeling: Bedrock Saturated Hydraulic Conductivity Calculation*. ANL-NBS-HS-000054 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20060710.0001.
23. BSC 2006. *Data Analysis for Infiltration Modeling: Development of Soil Units and Associated Hydraulic Parameter Values*. ANL-NBS-HS-000055 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20060912.0006.
24. BSC 2006. *Data Analysis for Infiltration Modeling: Development of Soil Units and Associated Hydraulic Parameter Values*. ANL-NBS-HS-000055 REV 00 ACN 01. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20070102.0003.
25. BSC 2006. *Data Analysis for Infiltration Modeling: Development of Soil Units and Associated Hydraulic Parameter Values*. ANL-NBS-HS-000055 REV 00 ACN 02. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20070212.0001.

cc w/Encls:

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