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YUCCA MOUNTAIN - REQUEST FOR ADDITIONAL INFORMATION - VOLUME 3, CHAPTER 2.2.1.2.1, 5th SET (SCENARIO ANALYSIS) (DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT SECTION 2.2, TABLE 2.2-5)

Reference: Ltr, Sulima to Williams, dtd 05/07/09, "Yucca Mountain – Request for Additional Information – Volume 3, Chapter 2.2.1.2.1, 5th Set (Scenario Analysis) (Department of Energy's Safety Analysis Report Section 2.2, Table 2.2-5)"

The purpose of this letter is to transmit the U.S. Department of Energy's (DOE) responses to the Requests for Additional Information (RAIs) identified in the above-referenced letter regarding DOE's Safety Analysis Report Section 2.2, Table 2.2-5. 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, are included with this submittal.

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.

Steven E Gomberg (for)

Jeffrey R. Williams, Supervisor
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Office of Technical Management

OTM: CJM-0786

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Enclosures (15):

1. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 2
2. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 4
3. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 6
4. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 7
5. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 8
6. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 1
7. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 3
8. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 5, Number 5
9. BSC (Bechtel SAIC Company) 2001. *EQ6 Calculation for Chemical Degradation of Enrico Fermi Codisposal Waste Packages: Effects of Updated Design and Rates.* CAL-EDC-MD-000015 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: MOL.20020102.0190.
10. BSC 2006. *Chlorine-36 Validation Study at Yucca Mountain, Nevada.* TDR-NBS-HS-000017 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20060829.0002.
11. CRWMS (Civilian Radioactive Waste Management System) M&O (Management and Operating Contractor) 1997. *Criticality Abstraction/Testing Workshop Results*. B00000000-01717-2200-00187. Las Vegas, Nevada: CRWMS M&O. ACC: MOL.19980528.0040.
12. CRWMS M&O 2000. *EQ6 Calculation for Chemical Degradation of Shippingport LWBR (Th/U Oxide) Spent Nuclear Fuel Waste Packages.* CAL-EDC-MD-000008 REV 00. Las Vegas, Nevada: CRWMS M&O. ACC: MOL.20000926.0295.
13. Freeze, G.A.; Brodsky, N.S.; and Swift, P.N. 2001. *The Development of Information Catalogued in REV00 of the YMP FEP Database.* TDR-WIS-MD-000003 REV 00 ICN 01. Las Vegas, Nevada: Bechtel SAIC Company. ACC: MOL.20010301.0237.
14. LeCain, G.D.; Lu, N.; and Kurzmack, M. 2002. *Use of Temperature, Pressure, and Water Potential Data to Estimate Infiltration and Monitor Percolation in Pagany Wash Associated with the Winter of 1997–98 El Niño Precipitation, Yucca Mountain, Nevada*. Water Resources Investigations Report 02-4035. Denver, Colorado: U.S. Geological Survey. ACC: MOL.20020925.0158.
15. Peterman, Z. 2003. "Statistical evaluation of the detection limit and reproducibility of tritium activity measurements in the USGS, Denver YMP Laboratory between 1995 and 1999 (Liquid Scintillation Spectrometry Method)." ACC: MOL.20030904.0124.

cc w/encl:
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Susan Durbin, California Attorney General's Office, Sacramento, CA
Charles Fitzpatrick, Egan, Fitzpatrick, Malsch, PLLC

EIE Document Components:

Enclosure #	File Name	File Size, kB
N/A	001_NRC_Tran_Ltr_3.2.2.1.2.1_Set_5.pdf	
1 through 8	002_Encls_RAI_1_thru_8_3.2.2.1.2.1_Set_5.pdf	6,763
9	003_MOL.20020102.0190_CAL-EDC-MD-000015_R0.pdf	9,735
10	004_DOC.20060829.002_TDR-NBS-HS-000017_R0.pdf	5,862
11	005_MOL.19980528.0040_B0000000001717220000187.pdf	8,920
12	006_MOL.20000926.0295_CAL-EDC-MD-000008_R0.pdf	1,563
13	007_MOL.20010301.0237_TDR-WIS-MD-000003_R0I1.pdf	589
14	008_MOL.20020925.0158_USGS_WRIR_02-4035.pdf	4,251
15	009_MOL.20030904.0124_USGS.pdf	369