



Department of Energy

Washington, DC 20585

QA: N/A

DOCKET NUMBER 63-001

January 7, 2010

ATTN: Document Control Desk

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YUCCA MOUNTAIN - SUPPLEMENTAL RESPONSES TO REQUEST FOR ADDITIONAL INFORMATION - SAFETY EVALUATION REPORT, VOLUME 3, CHAPTER 2.2.1.2.1 (SCENARIO ANALYSIS), 4TH SET (U.S. DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT SECTION 2.2.1.2)

- Reference 1: Ltr, Sulima to Williams, dtd 03/03/09, "Yucca Mountain – Request for Additional Information – Safety Evaluation Report, Volume 3, Chapter 2.2.1.2.1 (Scenario Analysis), 4th Set (U.S. Department of Energy's Safety Analysis Report Section 2.2.1.2)"
- Reference 2: Ltr, Williams to Sulima, dtd 03/26/09, "Yucca Mountain – Request for Additional Information – Safety Evaluation Report, Volume 3, Chapter 2.2.1.2.1 (Scenario Analysis), 4th Set (U.S. Department of Energy's Safety Analysis Report Section 2.2.1.2)"

The purpose of this letter is to transmit the U.S. Department of Energy's supplemental responses to the Request for Additional Information (RAI) identified in reference 1 above. The supplemental responses were developed based on our understanding of the technical areas requiring further clarification, as discussed in a December 1, 2009, public teleconference. During the teleconference, the NRC asked six additional questions pertaining to RAI Numbers 20, 21, 23, 25, 26, 35, 36, and 41. The supplemental responses to two of these questions, one concerning RAI Numbers 25 and 26, and the other concerning RAI Number 36, are provided as enclosures to this letter. The original responses to these RAIs were provided by reference 2 above. The supplemental responses to RAI Numbers 20 and 21 were provided on December 15, 2009.

The DOE references cited in the supplemental RAI responses either have been previously provided with the License Application, as part of previous RAI responses, or are included as enclosures with this submittal. The references provided with a previous RAI response are identified within the enclosed response reference section.



There are no commitments in the enclosed supplemental 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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Office of Technical Management

OTM: SEG-0210

Enclosures (7):

1. Supplemental Response to RAI Volume 3, Chapter 2.2.1.2, Set 4, Numbers 25 and 26
2. Supplemental Response to RAI Volume 3, Chapter 2.2.1.2, Set 4, Number 36
3. BSC (Bechtel SAIC Company) 2002. *Summary Report of Code to Code Comparisons Performed for the Disposal Criticality Analysis Methodology*. TDR-UDC-NU-000005 REV 00. Las Vegas, Nevada: Bechtel SAIC Company. ACC: MOL.20020603.0127.
4. BSC 2003a. *Calculation of Isotopic Bias and Uncertainty for BWR SNF*. CAL-DSU-NU-000003 REV 00A. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20031030.0007.
5. BSC 2003b. *Limerick Unit 1 Radiochemical Assay Comparisons to SAS2H Calculations*. CAL-DSU-NU-000002 REV 00A. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20030825.0001.
6. BSC 2004. *44-BWR Waste Package Loading Curve Evaluation*. CAL-DSU-NU-000008 REV 00A. Las Vegas, Nevada: Bechtel SAIC Company. ACC: DOC.20040825.0005; DOC.20050801.0009.
7. Mays, C.W. 2004. *Code-to-code Comparison of One- and Two-Dimensional Methods*. 32-5048840-00. Las Vegas, Nevada: Areva. ACC: DOC.20041015.0003.

cc w/encls:

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 Susan Durbin, California Attorney General's Office, Sacramento, CA
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EIE Document Components:

Enclosure #	File Name	File Size, KB
N/A	001_Trans_Ltr_3.2.2.1.2_Set4_RAI_25_26_36_Sup.pdf	N/A
1 and 2	002_Encl_3.2.2.1.2_Set_4_RAI_25_26_36_Sup.pdf	1,675
3	003_MOL.20020603.0127_TDR-UDC-NU-000005_R00.pdf	7,969
4	004_DOC.20031030.0007_CAL-DSU-NU-000003_R00A.pdf	6,795
5	005_DOC.20030825.0001_CAL-DSU-NU-000002_R000A.pdf	7,414
6	006_DOC.20040825.0005_CAL-DSU-NU-000008_R00A.pdf	681
7	007_DOC.20050801.0009_CAL-DSU-NU-000008_R0AE1.pdf	1,606
8	008_DOC.20041015.0003_32-5048840-0.pdf	5,339