

# **Department of Energy**

Washington, DC 20585

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## **ATTN: Document Control Desk**

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YUCCA MOUNTAIN – REQUEST FOR ADDITIONAL INFORMATION – SAFETY EVALUATION REPORT, VOLUME 3, CHAPTER 2.2.1.2.1 (SCENARIO ANALYSIS), 6TH SET (DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT SECTION 2.2, TABLE 2.2-5)

### **AND**

YUCCA MOUNTAIN – SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION – SAFETY EVALUATION REPORT, VOLUME 3, CHAPTER 2.2.1.2.1 (SCENARIO ANALYSIS), THIRD SET (DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT SECTION 2.2, Table 2.2-5)

- Reference 1: Ltr, Sulima to Williams, dtd 10/14/09, "Yucca Mountain Request for Additional Information Safety Evaluation Report, Volume 3, Chapter 2.2.1.2.1 (Scenario Analysis), 6th Set (Department of Energy's Safety Analysis Report Section 2.2, Table 2.2-5)"
- Reference 2: Ltr, Sulima to Williams, dtd 02/04/09, "Yucca Mountain Request for Additional Information Safety Evaluation Report, Volume 3, Chapter 2.2.1.2.1 (Scenario Analysis), 3rd Set (Department of Energy's Safety Analysis Report Section 2.2, Table 2.2-5)"
- Reference 3: Ltr, Williams to Sulima, dtd 03/04/2009, 'Yucca Mountain Request for Additional Information Safety Evaluation Report, Volume 3, Chapter 2.2.1.2.1 (Scenario Analysis), 3rd Set (Department of Energy's Safety Analysis Report Section 2.2, Table 2.2-5)"

The purpose of this letter is twofold. The first to transmit the U.S. Department of Energy's (DOE) response to one (1) of the six (6) Requests for Additional Information (RAI) identified in the reference 1, pertaining to the sixth set of RAI for Safety Evaluation Report (SER), Volume 3, Chapter 3.2.2.1.2.1. The response to RAI Number 2 from this set is provided as Enclosure 1 to this letter. DOE submitted the response to RAI Number 3 from this set on November 5, 2009; responses to RAI Numbers 4 and 5 on November 17, 2009; the response to RAI Number 1 on November 24, 2009; and the response to RAI Number 6 on December 3, 2009.

The second purpose of this letter is to transmit DOE's supplemental response to RAI Number 1 identified in reference 2 above, pertaining to the third set of RAI for SER Volume 3, Chapter 2.2.1.2.1. The supplemental response to RAI Number 1 is provided as Enclosure 2 to this letter. The original response to this RAI was provided by reference 3 above.

This supplemental response was developed because the original response to this RAI cited two values from the last sentence of Section 2.3.6.6.3.2.6 of the *Safety Analysis Report*. The source of these values was Table 6-8 of *Analysis of Mechanisms for Early Waste Package/Drip Shield Failure*. ANL-EBS-MD-000076, REV 00. However, these two values were updated in Error Resolution Document (ERD) 03, which was approved on February 2, 2009. The updated values were not used in the RAI response, submitted on March 4, 2009. The mean and median values provided on page 2 of the RAI Response should have been  $9.71 \times 10^{-7}$  and  $2.86 \times 10^{-7}$  per waste package, respectively. The enclosed supplemental response contains the content of the original response, with the corrected mean and median values.

Most of the DOE references cited in the RAI responses have previously been provided with the License Application (LA) or LA Update. A DOE reference cited in the RAI response Number 1, which has not been previously provided to the Nuclear Regulatory Commission, is included with this submittal as Enclosure 3.

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.

Jeffrey R. Williams, Supervisor Licensing Interactions Branch Regulatory Affairs Division Office of Technical Management

OTM: CJM-0154

### Enclosures (3):

- 1. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 6, Number 2
- 2. Response to RAI Volume 3, Chapter 2.2.1.2.1, Set 3, Number 1
- 3. SNL (Sandia National Laboratories) 2007. *Analysis of Mechanisms for Early Waste Package/Drip Shield Failure*. ANL-EBS-MD-000076 REV 00 ERD 03. Las Vegas, Nevada: Sandia National Laboratories. ACC: DOC.20090204.0003.

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## **EIE Document Components**

001_NRC_Trans_Ltr_3.2.2.1.2.1_Sets_3_and_6.pdf	
002_Encl_3.2.2.1.2.1_Set6_ 1_Part_1_of_2.pdf	11,517 KB
003_Encl_3.2.2.1.2.1_Set6_ 1_Part_2_of_2.pdf	7,536 KB
004_Encl_3.2.2.1.2.1_Sup_Set3_1.pdf	202 KB
005 DOC.20090204.0003 ANL-EBS-MD-000076 R0E3.pdf	3,179 KB