



Department of Energy
Washington, DC 20585

QA: N/A
DOCKET NUMBER 63-001

April 30, 2009

ATTN: Document Control Desk

John H. (Jack) Sulima, Project Manager
Project Management Branch Section B
Division of High-Level Waste Repository Safety
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
EBB-2B2
11545 Rockville Pike
Rockville, MD 20852-2738

YUCCA MOUNTAIN-REQUEST FOR ADDITIONAL INFORMATION-SAFETY
EVALUATION REPORT, VOLUME 3-POSTCLOSURE CHAPTER 2.2.1.3.3-QUANTITY
AND CHEMISTRY OF WATERS CONTACTING THE ENGINEERED BARRIERS AND
WASTE FORMS, SET 1- (DEPARTMENT OF ENERGY'S SAFETY ANALYSIS REPORT
SECTION 2.3.5)

Reference: Ltr, Sulima to Williams, dtd 03/19/09, "Yucca Mountain – Request for Additional
Information – Safety Evaluation Report, Volume 3 – Postclosure Chapter 2.2.1.3.3
– Quantity and Chemistry of Waters Contacting the Engineered Barriers and Waste
Forms, Set 1 – (Department of Energy's Safety Analysis Report Section 2.3.5)"

The purpose of this letter is to transmit the U.S. Department of Energy's (DOE) responses to the
remaining six (6) of the seventeen (17) Requests for Additional Information (RAI) identified in
the above-referenced letter regarding DOE's License Application Section 2.3.5. Each RAI
response is provided as a separate enclosure. The DOE references cited in the RAI responses
have previously been provided with the License Application (LA) or the LA update.

Please note that DOE submitted to NRC the responses to RAIs Numbers 8 and 11 on April 15,
2009; the responses to RAIs Numbers 5, 13, 14, and 15 on April 16, 2009; and the responses to
RAIs Numbers 3, 4, 10, 16, and 17 on April 23, 2009.

Per NRC's request in RAI Number 1, the file containing the XYZ coordinates for pore-water
sampling locations is provided as Enclosure 7 to this letter. The file is formatted for use in
EarthVision Version 7.5.3. The contents of the file are also reproduced in Appendix B to the
response to RAI Number 1, which is provided as Enclosure 1.



April 30, 2009

There is a commitment in the enclosed response to RAI Number 7. 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-0674

Enclosures (7):

1. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 1
2. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 2
3. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 6
4. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 7
5. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 9
6. Response to RAI Volume 3, Chapter 2.2.1.3.3, Set 1, Number 12
7. Text file: *Water_sample_locations_ev.dat*

cc w/encls:

J. C. Chen, NRC, Rockville, MD
J. R. Davis, NRC, Rockville, MD
R. K. Johnson, NRC, Rockville, MD
A. S. Mohseni, NRC, Rockville, MD
N. K. Stablein, NRC, Rockville, MD
D. B. Spitzberg, NRC, Arlington, TX
J. D. Parrott, NRC, Las Vegas, NV
L. M. Willoughby, NRC, Las Vegas, NV
Jack Sulima, NRC, Rockville, MD
Christian Jacobs, NRC, Rockville, MD
Lola Gomez, NRC, Rockville, MD
W. C. Patrick, CNWRA, San Antonio, TX
Budhi Sagar, CNWRA, San Antonio, TX
Bob Brient, CNWRA, San Antonio, TX
Rod McCullum, NEI, Washington, DC
B. J. Garrick, NWTRB, Arlington, VA
Bruce Breslow, State of Nevada, Carson City, NV
Alan Kalt, Churchill County, Fallon, NV
Irene Navis, Clark County, Las Vegas, NV
Ed Mueller, Esmeralda County, Goldfield, NV
Ron Damele, Eureka County, Eureka, NV
Richard Cervantes, Inyo County, Independence, CA
Chuck Chapin, Lander County, Battle Mountain, NV
Connie Simkins, Lincoln County, Pioche, NV
Linda Mathias, Mineral County, Hawthorne, NV
Darrell Lacy, Nye County, Pahrump, NV
Jeff VanNeil, Nye County, Pahrump, NV
Joe Kennedy, Timbisha Shoshone Tribe, Death Valley, CA
Mike Simon, White Pine County, Ely, NV
K. W. Bell, California Energy Commission, Sacramento, CA
Barbara Byron, California Energy Commission, Sacramento, CA
Susan Durbin, California Attorney General's Office, Sacramento, CA
Charles Fitzpatrick, Egan, Fitzpatrick, Malsch, PLLC

EIE Document Components:

001_NRC_Trans_3.2.2.1.3.3_Set_1_No_4.pdf	
002_Encls_RAI_1_2_6_3.2.2.1.3.3.pdf	11,820 KB
003_Encls_RAI_7_9_12_3.2.2.1.3.3.pdf	26,230 KB
004_Water_sample_locations_ev.dat	8 KB