



Department of Energy
Office of Civilian Radioactive Waste Management
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QA: N/A
Project No. WM-00011

MAY 07 2004

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TRANSMITTAL OF REFERENCE DOCUMENTS TO SUPPORT THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) REVIEW OF KEY TECHNICAL ISSUE (KTI) AGREEMENTS RELATED TO TECHNICAL BASIS DOCUMENT NO. 8: COLLOIDS, REVISION 2

- References: (1) Ltr, Schlueter to Ziegler, dtd 12/23/03 (Status of NRC Review of DOE KTI Agreement Responses and Information Needed to Complete NRC Reviews)
(2) Ltr, Ziegler to Chief, H-LW Branch, dtd 1/30/04 (References Supporting KTI Agreement Resolution)

Your letter of December 23, 2003, (reference 1) provided a list of documents the NRC needs to complete their review of six of the seven Technical Basis Documents and associated KTI agreement responses recently submitted by the U.S. Department of Energy.


This letter transmits the reference documents (enclosures 1-9) of the approved version of nine of the ten documents requested by the NRC staff to complete its review of certain KTI agreement responses included in *Technical Basis Document No. 8: Colloids*, Revision 2. In addition, consistent with the enclosure to Reference 2, a tenth document, SZ Flow and Transport Model Abstraction, MDL-NBS-HS-000021, Revision 00 is also included (enclosure 10). A compact disc (CD) is enclosed that contains electronic copies of the approved documents (enclosure 11). These documents reflect the current status of the Yucca Mountain Project's scientific and design bases and remain subject to future change. Information that evolves through subsequent changes of the referenced documents will be reflected in the License Application. The following document requested in Reference 1 is in the process of development and will be transmitted when it is approved:

EBS Radionuclide Transport Abstraction, ANL-WIS-PA-000001 Revision 01F.

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There are no new regulatory commitments in the body or enclosures of this letter. Please direct any questions concerning this letter and its enclosures to David C. Haught at (702) 794-5474 or by e-mail at david_haught@ymp.gov, or Deborah L. Barr at (702) 794-1479 or by e-mail at deborah_barr@ymp.gov.


Joseph D. Ziegler, Director
Office of License Application & Strategy

OLA&S:TCG-0594

Enclosures:

1. *In-Package Chemistry Abstraction.*
ANL-EBS-MD-000037 Rev. 02
2. *Saturated Zone Colloid Transport.*
ANL-NBS-HS-000031 Rev. 01
3. *Features, Events and Processes in UZ
Flow and Transport.*
ANL-NBS-MD-000001 Rev 02
4. *Waste Form and In-Drift Colloids-
Associated Radionuclide Concentrations:
Abstraction and Summary.*
MDL-EBS-PA-0000004 Rev 00
5. *Drift-Scale Coupled Processes (DST and
THC Seepage) Models.*
MDL-NBS-HS-000001 Rev 002 Errata 002
6. *Radionuclide Transport Model under
Ambient Conditions.*
MDL-NBS-HS-000008 Rev 01
7. *Particle Tracking Model and Abstraction
of Transport Processes.*
MDL-NBS-HS-000020 Rev 00
8. *Saturated Zone Flow and Transport
Model Transport.*
MDL-NBS-HS-000021 Rev 01
9. Mertz, C.J., et al. *Characterization of
Colloids Generated From Spent Nuclear
Fuel Corrosion.* Argonne National Laboratory
10. *SZ Flow and Transport Model Abstraction.*
MDL-NBS-HS-000021 Rev 00

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Enclosures: (continued)

11. CD of Enclosures 1-10

12. Document File Format Information of CD

cc w/encls 1-12:

B. J. Garrick, ACNW, Rockville, MD

W. C. Patrick, CNWRA, San Antonio, TX

W. D. Barnard, NWTRB, Arlington, VA

cc w/encls 11 and 12:

D. D. Chamberlain, NRC, Arlington, TX

G. P. Hatchett, NRC, Rockville, MD

J. D. Parrott, NRC, Las Vegas, NV

D. B. Spitzberg, NRC, Arlington, TX

H. J. Larson, ACNW, Rockville, MD

Budhi Sagar, CNWRA, San Antonio, TX

J. R. Egan, Egan & Associates, McLean, VA

J. H. Kessler, EPRI, Palo Alto, CA

M. J. Apted, Monitor Scientific, LLC, Denver, CO

Rod McCullum, NEI, Washington, DC

R. R. Loux, State of Nevada, Carson City, NV

Pat Guinan, State of Nevada, Carson City, NV

Alan Kalt, Churchill County, Fallon, NV

Irene Navis, Clark County, Las Vegas, NV

George McCorkell, Esmeralda County, Goldfield, NV

Leonard Fiorenzi, Eureka County, Eureka, NV

Michael King, Inyo County, Edmonds, WA

Andrew Remus, Inyo County, Independence, CA

Mickey Yarbrow, Lander County, Battle Mountain, NV

Spencer Hafen, Lincoln County, Pioche, NV

Linda Mathias, Mineral County, Hawthorne, NV

L. W. Bradshaw, Nye County, Pahrump, NV

Mike Simon, White Pine County, Ely, NV

R. I. Holden, National Congress of American Indians, Washington, DC

cc w/o encls:

A. C. Campbell, NRC, Rockville, MD

L. L. Campbell, NRC, Rockville, MD

R. M. Latta, NRC, Las Vegas, NV

N. K. Stablein, NRC, Rockville, MD

ENCLOSURE 12

DOCUMENT FILE INFORMATION OF COMPACT DISC (CD)

The enclosed CD contains ten pdf files containing one of the references to the *Technical Basis Document No. 8: Colloids, Revision 2* requested by the NRC in the Schluter to Ziegler dated 12/23/03.

The pdf files included in the CD are:

<u>Enclosure #</u>	<u>Directory/File Name</u>	<u>Size (bytes)</u>	<u>Date</u>	<u>Sensitivity Level</u>
1	ANL-EBS-MD-000037 Rev 02.pdf	3,949KB	12/22/03	Publicly Available
2	ANL-NBS-HS-000031 Rev 01.pdf	1,770KB	01/14/04	Publicly Available
3	ANL-NBS-MD-000001 Rev 02.pdf	984KB	04/14/04	Publicly Available
4	MDL-EBS-PA-000004 Rev 00.pdf	1,485KB	12/22/03	Publicly Available
5	MDL-NBS-HS-000001 Rev 02 Errata 002.pdf	20,417KB	04/07/04	Publicly Available
6	MDL-NBS-IIS-000008 Rev 01.pdf	31,534KB	01/14/04	Publicly Available
7	MDL-NBS-HS-000020 Rev 00.pdf	1,870KB	04/14/04	Publicly Available
8	MDL-NBS-IIS-000021 Rev 01.pdf	3,086KB	03/17/04	Publicly Available
9	Mertz et al.pdf	4,673KB	04/14/04	Publicly Available
10	MDL-NBS-IIS-000021 Rev 00.pdf	13,188KB	12/15/03	Publicly Available