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QA: N/A

FEB 02 2001

OVERNIGHT MAIL

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**TRANSMITTAL OF ANALYSIS AND MODEL REPORTS (AMR), PROCESS MODEL
REPORTS, CALCULATIONS AND OTHER DOCUMENTS ADDRESSING KEY
TECHNICAL ISSUES (KTI) TECHNICAL EXCHANGES**

The enclosed documents are provided as agreed in recent Technical Exchanges (TE) addressing several KTIs. The TEs for which documents are provided and the dates the TEs were held are as follows:

Igneous Activity	August 29-30, 2000
Container Life and Source Term	September 12-13, 2000
Structural Deformation & Seismicity	October 11-12, 2000
Criticality	October 23-24, 2000
Saturated Zone	October 31-November 2, 2000
Radionuclide Transport	December 5-7, 2000
TSPA-SR Briefing	January 23, 2001
Thermal Effects on Flow	January 8-9, 2001
Evolution of the Near Field	January 9-12, 2001

Enclosure 1 is a list of documents and the KTIs they address, except as noted in the footnotes on that list.

Enclosure 2 is the hard copy of the documents listed in enclosure 1. One item listed constitutes the input and output files for the Multiscale Thermohydrologic Model AMR ANL-EBS-MD-000049, Revision. 00, ICN 01, which is also included in this submittal. The input and output files are included on a set of 24 compact discs (CD) and have been provided only to the U.S. Nuclear Regulatory Commission (NRC) because of the large file volume and limited serviceability. If, however, any of the parties require access to the input/output files, they will be provided upon request.

*Rec'd from NRC
on 06/27/01
Enclosures have already
been rec'd.*

FEB 02 2001

Enclosure 3 is a list of documents that we expected to have available for transmittal to the NRC in January 2001. However, these documents will not be available until February 2001 (or March 2001 as indicated). We will provide the documents as soon as they become available.

Enclosure 4 is a CD of the documents listed in enclosure 1.



Stephan Brocoum
Assistant Manager, Office of
Licensing and Regulatory Compliance

OL&RC:TCG-0619

Enclosures:

1. List of Documents and the KTI Identifier
2. Hard Copy of Documents Listed in enclosure 1 (except Multi-Scale Thermohydrologic Model I/O files; provided in a set of 24 CDs to NRC only).
3. List of January Documents Not Yet Available with KTI Identifier
4. CD Titled "AMRs, PMRs, Calculations and Other Documents Addressing KTI Technical Exchanges January 2001" (contains, in pdf format, documents listed in enclosure 1, except Multi-Scale Thermohydrologic Model I/O files)

cc w/encls 1, 3 and 4:

S. H. Hanauer, DOE/HQ (RW-2) FORS
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FEB 02 2001

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OL&RC Library

Records Processing Center =

(ENCLS = READILY AVAILABLE)

LIST I

List of Enclosed Documents and KTI Identifier

Document	Rev/ICN #	Title/Description	IA	CLST	SDS	CRIT	SZ	RT	ENFE	TEF
AMR										
ANL-EBS-GE-000003	01/00	Longevity of Emplacement Drift Ground Support Materials							X	
ANL-EBS-HS-000003	00/01	Abstraction of NFE Thermodynamic Env & Perc Flux		X						X
ANL-EBS-MD-000001	00/01	Environment on Surfaces of Drip Shield & WP Outer Barrier							X	
ANL-EBS-MD-000004	00/00	General Corrosion & Localized Corrosion of Drip Shield							X	
ANL-EBS-MD-000005	00/01	Stress Corrosion Cracking of Drip Shield, WP Outer Barrier, & the Stainless Steel Structural Material							X	
ANL-EBS-MD-000006	00/01	Hydrogen Induced Cracking of Drip Shield							X	
ANL-EBS-MD-000012	00/00	Clad Degradation- Local Corrosion Zirc and its Alloys		X						
ANL-EBS-MD-000016	00/01	Defense HLW Glass Degradation		X						
ANL-EBS-MD-000027	01/00	Drift Degradation Analysis							X	
ANL-EBS-MD-000032	01/00	Water Distribution and Removal Model							X	
ANL-EBS-MD-000038	00/01	In-Drift Microbial Communities							X	
ANL-EBS-MD-000046	00/01	Physical and Chemical Environmental Abstraction Model							X	
ANL-EBS-MD-000048	00/01	Initial Cladding Condition		X						
ANL-EBS-MD-000049	00/01	Multiscale Thermohydrologic Model		X					X	X
ANL-EBS-PA-000004	00/01	Abstraction of Models for Stress Corrosion Cracking of Drip Shield and Waste Package Outer Barrier and Hydrogen Induced Corrosion of Drip Shield							X	
ANL-MGR-GS-000001	00/01	Characterize Framework for Igneous Activity	X							
ANL-MGR-MD-000001	01/00	Values for External Inhalation Rad Exposure Analysis	X							
ANL-WIS-MD-000005	00/01	FEPs: Disruptive Events			X	X			X	X
ANL-WIS-MD-000006	00/01	Inventory Abstraction						X		
ANL-WIS-MD-000008	00/01	Clad Degradation - FEPs Screening Arguments							X	
ANL-WIS-MD-000012	00/01	WF Colloid-Assoc. Concentration Limits : Abst & Sum		X				X	X	
ANL-WIS-MD-000015	00/01	Dike Propagation Near Drifts	X							
ANL-WIS-MD-000017	00/01	Igneous Consequence Modeling for TSPA-SR	X							
ANL-WIS-MD-000019	00/00	FEPs: System-level & Criticality				X			X	X

LIST I

List of Enclosed Documents and KTI Identifier

Document	Rev/ICN #	Title/Description	IA	CLST	SDS	CRIT	SZ	RT	ENFE	TEF
✓ ANL-XCS-ME-000001	00/00	Design Analysis for the Ex-Container Components							X	
PMRs										
✓ TDR-NBS-MD-000001 ^①	00/03	PMR: Near-Field Environment							X	X
✓ TDR-WIS-MD-000002 ^②	00/01	PMR: Waste Package Degradation							X	
CALCULATIONS										
✓ CAL-WIS-MD-000011	00/00	Comparison of ASHPLUME Results to TEPHRA	X							
✓ CAL-WIS-PA-000001	01/00	Number of Waste Packages Hit by Igneous Intrusion	X							
CAL-UDC-ME-000001	00/00	Thermal History of Cladding in PWR SNF WP		X						
MODEL										
✓ MDL-WIS-PA-000002 ^③	00/00	TSPA Model for Site Recommendation						X	X	
OTHER										
MOL.20000706.0396 ^④	N/A	Multi-Scale Thermohydrologic Model I/O files								X
✓ TDP-EBS-ND-000005	00/00	WP FY00 Closure Methods Report		X						
✓ TDR-EBS-MD-000015	00/00	Review of Expected Behavior of Alpha Titanium Alloys.		X						
✓ TDR-EBS-ND-000003	01/00	WP Operations Fabrication Process Report		X						
✓ TDR-WIS-PA-000001 ^⑤	00/01	TSPA for the Site Recommendation						X	X	
TER-EBS-ND-000001	00/00	WP Operations FY01 Closure Weld Tech Guidelines Doc's		X						
YMP/TR-004 ^⑥	01/00	Disposal Criticality Analysis Methodology Topical Report				X				

^① This PMR was previously provided to the NRC and the parties on January 2, 2001.

^② This PMR was previously provided to the NRC and the parties on August 2, 2000.

^③ These TSPA documents were previously provided to the NRC and the parties on January 18, 2001.

^④ These are input and output files for the Multiscale Thermohydrologic Model AMR ANL-EBS-MD-000049 Rev. 00, ICN 01 which is also included in this submittal. The input and output files are included on 24 CDs and have been provided only to the NRC because of the large file volume and limited serviceability.

^⑤ This document will be provided under separate cover.

LIST II

List of January Documents Not Yet Available with KTI Identifier

Document	Rev/ICN #	Title/Description	Expected Availability	IA	CLST	SDS	CRIT	SZ	RT	ENFE	TEF
AMR											
ANL-EBS-MD-000045	00/02	In-Drift Precipitates/Salts Analysis	February							X	
ANL-EBS-MD-000050	01/00	Summary of In-Package Chemistry Waste Forms ¹	March		X					X	
ANL-EBS-PA-000002	01/00	FEPs Screening of Processes and Issues in Drip Shield and Waste Package Degradation ²	February								
ANL-MGR-MD-000011	01/00	FEPs: Evaluation of Applicability of Biosphere-related Features, Events, and Processes ²	February								
ANL-NBS-MD-000001	01/00	FEPs: UZ Flow & Transport	February						X	X	X
ANL-NBS-MD-000002	01/00	FEPs: SZ Flow & Transport	February						X	X	X
ANL-NBS-MD-000004	00/01	FEPs: Thermal Hydrology & Coupled Processes	February								X
ANL-WIS-MD-000007	00/01	Clad Degradation - Summary and Abstraction	February		X						
ANL-WIS-MD-000009	00/01	FEPs: Miscellaneous Waste Form	February		X						
ANL-WIS-PA-000002	01/00	FEPs: Engineered Barrier System	February								X
OTHER											
FEPs DATABASE		Compilation of latest data references	March				X			X	X
Letter Report (Brocoum to Reamer)		Alcove 8/Niche 3 pre-test predictions	February			X			X		

¹ Report to be renumbered

² Agreed to between NRC and DOE but not related to a specific KTI