

Department of Energy

Office of Civilian Radioactive Waste Management Yucca Mountain Site Characterization Office P.O. Box 30307 North Las Vegas, NV 89036-0307

QA: N/A

NOV 24 1999

OVERNIGHT MAIL

John T. Greeves, Director Division of Waste Management Office of Nuclear Materials Safety and Safeguards U.S. Nuclear Regulatory Commission Two White Flint North Rockville, MD 20852

PROPOSED U.S. NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY'S (NRC/DOE) INTERACTIONS AND KEY TECHNICAL DOCUMENTS TO SUPPORT DOE'S SITE RECOMMENDATION DECISION

This letter describes a proposal, modeled on a very similar and successful process employed to support the NRC's review of the Viability Assessment (VA), for providing the NRC with reports that describe the technical basis that will support the DOE's Site Recommendation decision in June 2001. Plans for this proposal were briefly discussed at the August 1999 NRC/DOE Management Meeting.

The DOE's current plan calls for completion of a Site Recommendation Consideration Report (SRCR) in November 2000 and its subsequent release for public review and comment. Based on our present plan for developing the SRCR, these technical reports will be available on the schedule identified in Enclosure 1. The reports include the Yucca Mountain Site Description, the Total System Performance Assessment-SR (TSPA-SR), Process Model Reports (PMRs), appropriate Analysis and Model Reports (AMRs), appropriate System Description Documents (SDDs), and key supporting design analyses and reports (particularly those associated with the waste form and waste package). As these key documents become available, the DOE will transmit them to the NRC.

To provide the NRC with technical information related to the Site Recommendation and to provide the DOE with an opportunity to respond to your questions or comments on the references or the SRCR, the DOE also proposes a series of interactions, identified in Enclosure 2, to focus on specific information contained in the technical reports. Schedules for these meetings are contingent on availability of the documents and staff at our respective agencies. Therefore, the interactions would occur after the reports are completed and transmitted to the NRC, with a suitable time for your review. If you agree with our approach, these interactions would be incorporated into our master NRC/DOE interactions list, which would also reflect any other interactions, as agreed to on a standard semi-annual basis.

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The types of information to be discussed may include the technical status of the work described in the reports, the Quality Assurance status of the information presented, the status of the resolution of regulatory issues, and/or the status of any additional work planned before or during licensing. The proposed series of meetings in Enclosure 2 is based on the completion of the PMRs that summarize the postclosure site characterization analyses that are being prepared in support of the SR, and the SDDs and PMRs that describe the waste form proposal. In general, the meetings would focus on topics or issues identified by the NRC as important to completing preliminary comments on sufficiency of information. It is understood that the proposed meetings are informal pre-licensing consultations.

Finally, the series of proposed interactions include several meetings in early 2001. The purpose of these meetings is two-fold. First, the meetings will allow the DOE an opportunity to respond to any issues or concerns from the NRC that may have arisen during earlier interactions on the technical documents submitted to the NRC. Second, recognizing that the DOE will be producing updated versions of the basis reports (i.e., the PMRs and the TSPA-SR), this will allow an opportunity to discuss with the NRC any new information or changes, if any, in our conclusions that may result from these updated reports. In this regard, we do not presently anticipate that the technical content of the updated basis reports will differ significantly from the earlier versions that will have been discussed at the proposed interactions; these updated reports are expected to simply refine our approach and thinking. Although some of the proposed meetings in early 2001 will occur after the release of the SRCR, the DOE believes it is important to have this dialogue with the NRC prior to the DOE's site recommendation decision, to take full advantage of any additional insights you may have.

After you have had an opportunity to consider the approach that we have proposed to upcoming NRC/DOE interactions on our key technical documents, we would welcome any additional questions you might have, as well as your response to the proposal we have outlined. Please direct comments on this letter or the enclosures to J. Timothy Sullivan at (702) 794-5589 or April V. Gil at (702) 794-5578.

Stephan Brocoum Assistant Manager, Office of Licensing and Regulatory Compliance

OL&RC:AVG-0055

Enclosures:

- 1. Key Technical Reports
- 2. Proposed Plan for Interactions with NRC Through April 2001

KEY TECHNICAL REPORTS

DOCUMENT TITLE	DOCUMENT ID	DOCUMENT APPROVAL ¹
Process Model Reports (PMRs)		
Integrated Site Model, Rev. 00	SLP58CM3	01/00
Unsaturated Zone Flow and Transport, Rev. 00	SLP593M3	04/00
Engineered Barrier System, Rev. 00	SLEB145M3	04/00
Biosphere, Rev. 00	SLPMRM3	04/00
Waste Package Degradation, Rev. 00	SLFR0LM3	04/00
Waste Form Degradation, Rev. 00	SLPMRWM3	05/00
Near-Field Environment, Rev. 00	SLP7236M3	05/00
Saturated Zone Flow and Transport, Rev. 00	SLP60DM3	05/00
Disruptive Events, Rev. 00	SLT7012M3	05/00
System Description Documents (SDDs)		
Waste Package Uncanistered Spent Fuel Disposal Container	SED6550	06/00 ²
Defense HLW Disposal Container	SED6570	06/00 ² 7/3/
Naval Spent Nuclear Fuel Disposal Container	SED6590	06/00 ² C
Surface Facilities Waste Handling Building	SED6510	06/00 ²
Assembly Transfer	SED6530	06/00 ²
Canister Transfer	SED6B35	06/00 ² C

Engineered Barrier System Subsurface Facility	SED6370	06/00 ² C C 06/00 ² systered augs because the 06/00 ² duift system
Ex-Container	SED6390	C06/002 uple comment
Waste Emplacement	SED6450	06/00 ² duf
Waste Retrieval	SED6490	06/00 ²
Backfill Emplacement	SEDA615	06/00 ² Concelled 06/00 ² C
Subsurface Ventilation	SED6C25	06/00 ² C
Ground Control	SED6410	06/00 ²
Other Reports	·	
TSPA-SR, Rev. 00	SL921M3	10/00
Yucca Mountain Site Description, Rev. 01	SPQ314M3	05/00
Repository Safety Strategy, Rev. 3	SL06X7M3	TBD
Repository Safety Strategy, Rev. 4	SL08X7M3	07/00

¹ Reports will be made available to NRC after the DOE anticipated approval date indicated

² Internal documents that will be made available to NRC after approved by the M&O (no formal DOE review)

ENCLOSURE 2 Proposed Plan for Interactions with NRC Through April 2001

Date	Interaction	Торіс	Objective	Document Available ¹	Location	Agenda	YMP Contact & Phone #
Sep-00	Appendix 7	Near Field Environment PMR	Combined meeting on EBS/Near Field Models. Follow-up to LADs FY99 meeting. Review status of resolution of regulatory issues, QA status of information, status of key technical issues (IRSRs) and approaches to resolution prior to or during licensing.	Rev 00 (4/17/00);	Las Vegas, NV	TBD	NFE- Debbie Barr 4-1479 EBS - Jaime Gonzales 4-5454
Sep-00	Appendix 7	YM Site Description Document	Interaction to describe geoscience basis for SR.	YM Site Description Rev 01 (5/31/00)	Las Vegas, NV	TBD	Russ Patterson 4-5469
)ct 00	Appendix 7	Repository Safety Strategy	Follow-up meeting to discuss RSS approach for SR/LA, revisions to RSS for SR.	RSS Rev 4 (7/01/00)	Las Vegas, NV	TBD	Abe Van Luik 4-1424
Dct-00 2 days)	Appendix 7	Surface and Subsurface Design (SDDs)	Follow-on to LADS Dec-99 meeting. Will further discuss SR design.	Surf & EBS SDDs supprtg SR (6/28/00) ³	Las Vegas, NV	TBD	Paige Russell 4-1315
Nov-00 2 days)	Technical Exchange	TSPA - SR	Discussion of TSPA-SR Rev 00 for SR Consideration Report.		San Antonio, TX	TBD	Abe Van Luik 4-1424
Jan-01 2 days)	Appendix 7	Waste Form & Package Proposal (SDDs and supporting documents)	Follow-up combined meeting on waste form and waste package design and performance. Review status of resolution of regulatory issues, QA status of information, status of key technical issues (IRSRs) and approaches to resolution prior to or during licensing.	WP SDDs supprtg SR (6/07/00) ³	Las Vegas, NV	TBD	Paige Russell 4-1315
eb-01 befor e 16 ^m)	Appendix 7	UZ Flow and Transport PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing Models discussed during TSPA quarterly meetings, summarized after SRCR.	UZ F&T PMR Rev 00 (4/14/00);	Berkeley, CA (LBNL)	TBD	Russ Patterson 4-5469
Mar-01 (w/in last two weeks of month)	Appendix 7	SZ Flow and Transport PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing. Models discussed during TSPA quarterly meetings, summarized after SRCR.	SZ F&T PMR Rev 00 (5/24/00)	Albuquerque , NM (SNL)	TBD	Russ Patterson 4-5469
Apr-01	Appendix 7	TSPA-SR	Follow-up meeting on TSPA for SR.	TSPA-SR Rev 00 (9/29/00)	San Antonio, TX	TBD	Abe VanLuik 4-1424
Reports to	o be made ava	ailable to NRC after DOE approval (da	ate in parentheses) for discussion at interaction; those in italics	are internal	-	<u> </u>	
		ade available after M&O approval (not combined with proposed R&L NRC/D					
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ENCLOSURE 2 Proposed Plan for Interactions with NRC Through April 2001

)ate	Interaction	Topic					Phone #
	Technical Exchange	TSPA-SR Methods/Assumptions ²	SR; obtain NR feedback on approach; establish level of information necessary for LA development.		San Antonio, TX	TBD	Abe Van Luik 4-1424
eb-00	Appendix 7	Integrated Site Model PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing. First PMR meetings to explain model inputs to TSPA.	ISM PMR Rev 00 (12/01/99)	Las Vegas, NV	TBD	Mark Tynan 4-5457
far 00	Appendix 7	Disruptive Events PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues (IRSRs) and approaches to resolution prior to or during licensing; describe seismic design basis and disruptive events for TSPA; include discussion of seismic topical report status; follow-on mtg scheduled for 8/00.	NA	Las Vegas, NV	TBD	Tim Sullivan 4-5589
Aay-00 2 days)	Appendix 7	TSPA - SR	Preliminary information on TSPA-SR. Focus on changes from TSPA-VA with emphasis on design and SZ subsystem model changes.	NA	San Antonio, TX	TBD	Mark Tynan 4-5457
ul-00 3 days)	Appendix 7	Waste Package Degradation PMR Waste Form Degradation PMR Waste Form & Package Proposal (SDDs and supporting documents)		WP Degradtn PMR Rev 00 (4/21/00); WF Degradtn PMR Rev 00 (5/01/00); WP/WF SDDs supprtg SR (6/07/00) ³	Las Vegas, NV	TBD	Paige Russell 4-1315
lul-00 before 16**)	Appendix 7	UZ Flow and Transport PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing.	UZ F&T PMR Rev 00 (4/14/00),	Berkeley, CA (LBNL)	TBD	Russ Patterson 4-5469
ul-00 w/in last wo weeks of month)	Appendix 7	SZ Flow and Transport PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing.	SZ F&T PMR Rev 00 (5/24/00)	Albuquerque , NM (SNL)	TBD	Russ Patterson 4-5469
, Aug-00	Appendix 7	Disruptive Events PMR	Follow-up meeting to review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing. Meeting to describe seismic design basis and disruptive events for TSPA.	Disruptive Events PMR Rev 00 (5/30/00)	Las Vegas, NV	TBD	Tim Sullivan 4-5589
Aug-00	Appendix 7	Biosphere PMR	Review status of resolution of regulatory issues, QA status of information, status of key technical issues and approaches to resolution prior to or during licensing. Meeting to describe technical/regulatory assumptions.	Biosphere PMR Rev 00 (4/17/00)	Las Vegas, NV	TBD	Russ Patterson 4-5469

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L. H. Barrett, DOE/HQ (RW-1) FORS

cc w/encls:

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S. H. Hanauer, DOE/HQ (RW-2) FORS R. A. Milner, DOE/HQ (RW-2) FORS L. J. Desell, DOE/HQ (RW-45) FORS C. A. Kouts, DOE/HQ (RW-45) FORS A. B. Brownstein, DOE/HQ (RW-52) FORS C. E. Einberg, DOE/HQ (RW-52) FORS N. H. Slater, DOE/HQ (RW-52) FORS Richard Major, ACNW, Washington, DC B. J. Garrick, ACNW, Washington, DC Wes Patrick, CNWRA, San Antonio, TX J. K. Kessler, EPRI, Palo Alto, CA Steve Kraft, NEI, Washington, DC W. L. Belke, NRC, Las Vegas, NV D. J. Brooks, NRC, Rockville, MD C. J. Glen, NRC, Las Vegas, NV K. I. McConnell, NRC, Rockville, MD N. K. Stablein, NRC, Rockville, MD (2) S. L. Wastler, NRC, Rockville, MD W. D. Barnard, NWTRB, Arlington, VA R. R. Loux, State of Nevada, Carson City, NV John Meder, State of Nevada, Carson City, NV Alan Kalt, Churchill County, Fallon, NV D. A. Bechtel, Clark County, Las Vegas, NV Harriet Ealey, Esmeralda County, Goldfield, NV Leonard Fiorenzi, Eureka County, Eureka, NV Andrew Remus, Inyo County, Independence, CA Michael King, Inyo County, Edmonds, WA Tammy Manzini, Lander County, Austin, NV Jason Pitts, Lincoln County, Caliente, NV Jackie Wallis, Mineral County, Hawthorne, NV L. W. Bradshaw, Nye County, Pahrump, NV Jerry McKnight, Nye County, Tonopah, NV Debra Kolkman, White Pine County, Ely, NV R. I. Holden, National Congress of American Indians, Washington, DC Allen Ambler, Nevada Indian Environmental Coalition. Fallon, NV J. J. Curtiss, Winston & Straum, Las Vegas, NV K. M. Cline, MTS, Las Vegas, NV R. P. Gamble, MTS, Las Vegas, NV R. C. Murray, MTS, Las Vegas, NV K. L. Ashe, M&O, Las Vegas, NV

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