

July 12, 1995

0409

Mr. Ronald A. Milner, Director
for Program Management and Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy, RW 30
1000 Independence Avenue, SW
Washington, DC 20585

SUBJECT: MINUTES OF THE DECEMBER 6, 1994, MANAGEMENT MEETING

Dear Mr. Milner:

Enclosed are the minutes of the December 6, 1994, management meeting between the staff of the Nuclear Regulatory Commission and representatives of the U.S. Department of Energy (DOE). The meeting was held by video-teleconference at DOE Headquarters in Washington, DC and DOE's Yucca Mountain Site Characterization Office in Las Vegas, Nevada. Representatives of the State of Nevada; the United States Nuclear Waste Technical Review Board; Clark County, Nevada; Nye County, Nevada; the Center for Nuclear Waste Regulatory Analyses; and DOE contractors also attended the meeting.

During this meeting, discussions centered on NRC staff's proposal to limit the primary kinds of pre-licensing documents submittals by DOE to the license application annotated outline (AO) and the Site Characterization Plan Progress Reports and discussion of the nature of their contents. Also discussed were the status of several reviews and other issues of mutual concern to the NRC staff and DOE. During this meeting, it was agreed that some meetings might have to be scheduled with less than 10 days notice and that the more resource-conserving video-teleconferencing be used to the extent possible.

If you have any questions regarding this letter, please contact Pauline Brooks or Mark Delligatti of my staff. Ms. Brooks can be reached at 415-6604 and Mr. Delligatti can be reached at (301) 415-6620.

Sincerely,

(Original signed by John O. Thoma for)

Joseph Holonich, Chief
High-Level Waste and Uranium Recovery
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

cc: See attached list

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 12, 1995

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for Program Management and Integration
Office of Civilian Radioactive Waste Management
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Sincerely,

A handwritten signature in cursive script that reads "John O. Thomas for".

Joseph Holonich, Chief
High-Level Waste and Uranium Recovery
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

cc: See attached list

LIST FOR LETTER TO R. MILNER DATED July 1995

cc: R. Loux, State of Nevada
J. Meder, Nevada Legislative Counsel Bureau
W. Barnes, YMPO
C. Einberg, DOE/Washington, DC
M. Murphy, Nye County, NV
M. Baughman, Lincoln County, NV
D. Bechtel, Clark County, NV
D. Weigel, GAO
P. Niedzielski-Eichner, Nye County, NV
B. Mettam, Inyo County, CA
V. Poe, Mineral County, NV
W. Cameron, White Pine County, NV
R. Williams, Lander County, NV
L. Fiorenzi, Eureka County, NV
J. Hoffman, Esmeralda County, NV
C. Schank, Churchill County, NV
L. Bradshaw, Nye County, NV
W. Barnard, NWTRB
R. Holden, NCAI
A. Melendez, NIEC
S. Brocoum, YMPO
R. Arnold, Pahrump, NV
M. Stellavato, Nye County, NV

ENCLOSURE

MEETING MINUTES

U.S. NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY

DECEMBER 6, 1994, MANAGEMENT MEETING

On December 6, 1994, staff from the U.S. Nuclear Regulatory Commission met with representatives of the U.S. Department of Energy (DOE) in a video-teleconference to discuss items of mutual concern regarding the high-level waste repository program. The locations for the video-teleconference were DOE headquarters in Washington, DC and DOE's Yucca Mountain Site Characterization Office (YMSCO) in Las Vegas, Nevada (NV). Representatives of the Nuclear Waste Technical Review Board; the Center for Nuclear Waste Regulatory Analyses; DOE contractors; the State of Nevada; Nye County, NV; and Clark County, NV also attended the meeting. Other Affected Units of Local Government were notified of this meeting, but did not attend. Attendance lists from the two video-teleconference locations are included as Attachments 1 and 2.

The first topic discussed was NRC's plan of action associated with DOE's November 14, 1994, Dreyfus/Bernero letter responding to NRC concerns on design control and quality assurance at DOE's Management and Operations (M&O) contractor. The NRC staff indicated that it was in the process of reviewing the letter and DOE's planned corrective actions. The staff also plans an independent verification of DOE's implementation of corrective actions. In response to a question raised by one of the DOE representatives, the staff indicated its understanding that a letter to DOE would be sent by the end of December 1994.

The next topic discussed was DOE's concern with content requirements for topical report annotated outlines (Attachment 3). The DOE position was that annotated outlines are intended to describe the scope and content of a topical report. Furthermore, DOE's position was that annotated outlines are not intended to provide detailed technical information. The NRC staff responded that it saw the problem as being that what was presented in the annotated outline was not what was presented in the subsequent topical report. Therefore, the staff's comments were very detailed and specific in an attempt to get the content of a proposed topical report clarified. A recommendation was made by the NRC staff that a follow-up video-teleconference be held on Seismic Topical Report II to ensure that the staff had provided and DOE had understood the comments needed for the process to move forward.

The NRC staff discussed its proposal for limiting document submittals by DOE. The staff's proposal (Attachment 4) is to make the license application annotated outline (AO) and the Site Characterization Plan (SCP) Progress Reports the primary submittals for the repository program. The SCP Progress Reports provide the staff with the updated information on DOE's site characterization activities at Yucca Mountain. The AO should include any information which DOE has developed for demonstrating compliance with the regulatory requirements for construction authorization and licensing. This approach would allow information currently provided to NRC in various other documents (e.g., study plans, design reports, total system performance assessment reports, etc.) to be put in either of the two documents where it would be most useful and appropriate. This would also preclude duplicative reviews of information. The staff also noted that DOE would only have to submit those references, cited in the SCP Progress Reports, which were not readily available and which were specifically requested by the staff. This last point raised a good deal of discussion and concern among the parties over whether it ensured that all necessary information would be available for review. The staff stated that it believed that its approach would ensure that


all appropriate documents were available. However, the staff agreed to consider this further.

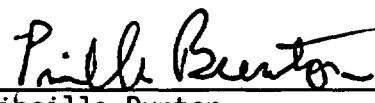
The staff's position was that its proposal would reduce the number of topical reports which DOE would submit to NRC and would ensure that those topical reports still needed would reflect the standard NRC definition and content for such reports. The staff noted that several of the topical reports currently identified by DOE actually speak to specific licensing issues for which chapters of the license application review plans have been prepared.

While generally supportive of the approach, the DOE representatives expressed concern. The DOE representatives were concerned that putting information currently planned for a topical report into the AO would mean a less definitive response from the staff, since a topical report should result in a Safety Evaluation Report being written by the staff. The DOE stated that some sort of positive affirmation of sufficiency by the NRC for specific sections of the AO would be needed to make the proposed NRC approach effective. The NV representative reminded the DOE representatives of the limits of issue resolution during the pre-licensing.

The DOE representatives discussed the DOE priority list (Attachment 5) of the most important documents it had submitted to the NRC staff and the most important technical topics to be discussed. The staff responded. Among the documents and topics discussed were Seismic Topical Report 1; Substantially Complete Containment (SCC); and the Design Basis Event rulemaking. The staff noted that DOE's letter of November 9, 1994 was currently under review. It was noted that an SCC technical exchange was scheduled for the day after this management meeting. The DBE rulemaking was currently under review by the Commission.

Finally, there was a discussion of the timely notification of parties of NRC/DOE interactions. NRC and DOE have scheduled the majority of their interactions at the bi-annual interactions scheduling meetings which are open to the State and Affected Units of Local Government. It has been NRC's policy to notify participants ten days in advance of each interaction. The faster pace of events in recent months has suggested that it may, on occasion, be necessary to schedule interactions with less than 10 days notice provided and to increase the number of interactions which are scheduled, as needed, outside of the interactions scheduling meeting. To accommodate these changes, the NRC staff and DOE representatives agreed to use video-teleconferencing to the extent practicable. This enhances the ability of the State and Affected Units of Local Government to participate in meetings and is also resource-conservative for NRC and DOE.


Mark S. Delligatti
Senior Project Manager
High-Level Waste and Uranium
Recovery Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission


Priscilla Bunton
Regulatory Integration Division
Office of Civilian Radioactive
Waste Management
U.S. Department of Energy

DOE/NRC MANAGEMENT MEETING

DECEMBER 6, 1995

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE NUMBER</u>
Priscilla Bunton	DOE	202-586-8365
Homi Minwalla	WESTON	202-646-6710
Mark Delligatti	NRC\HLUR	301-415-6620
Steve Frishmen	NV NWPO	702-687-3744
Chris Einberg	DOE	202-586-8869
Steve Nesbit	M&O/TRW	702-794-1910
John Russell	CNWRA	703-416-1129
Keith McConnell	NRC\ENGB	301-415-1750
Dan Fehringer	NWTRB	703-235-4473
Michael Bell	NRC\DWM	301-415-7286
Bill Reamer	NRC\OGC	301-415-1640
Robert Johnson	NRC\HLUR	301-415-7282
Steve Hanauer	DOE	202-586-6850
Paul M. Krishna	M&O/TRW	202-488-2303
Philip M. Dunn	M&O/TRW	202-488-2315
Sam Rousso	DOE	202-586-6046
Ronald Milner	DOE	202-586-9694
Lake Barrett	DOE	
Christopher Kouts	DOE	202-586-9761
Joe Holonich	NRC\HLUR	301-415-7238
John Greeves	NRC\DWM	301-415-6708

DOE/NRC MANAGEMENT MEETING

DECEMBER 6, 1995

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE NUMBER</u>
Norman T. Simms	M&O/DUKE	
Robert Harpster	QATSS\CER	
Steve LeRoy	M&O/DUKE	
Frank Comprelli	BECHTEL NATIONAL	
Bob Barton	DOE	
E. V. Tiesenhausen	CLARK COUNTY	
M. Murphy	NYE COUNTY	
R. E. Spence	DOE\YMQAP	
Claudia M. Newbury	DOE\YMP\AMSL	
Mike Lugo	M&O\PMO	
Russ Dyers	DOE\YMSCO	
Stephen Brocoum	DOE\YMSCO	
April Gil	DOE\YMSCO	
Richard Craun	DOE	

**DOE CONCERNS WITH
THE TOPICAL REPORT
ANNOTATED OUTLINE PROCESS**

**DOE-NRC Bi-Monthly Management Meeting
December 6, 1994**

**April V. Gil
Licensing Team Leader
Assistant Manager for Suitability and Licensing
Yucca Mountain Site Characterization Office**

Statement of DOE Concerns

- **DOE perspective**
 - **Annotated outlines are intended to describe the scope and content of a topical report**
 - **Annotated outlines are not intended to provide detailed technical information**
- **Based on the NRC letter of November 3, 1994, it appears that the staff expectations for an annotated outline go well beyond the NRC Topical Report Review Plan**

Topical Report Review Plan Guidance

- **(The DOE) "... shall submit a proposed scope and description of content of the topical report (the annotated outline), which NRC and DOE can use as a basis to begin discussions."**
- **"Within sixty days following submittal of the annotated outline of the topical report, the NRC staff will determine if it may be submitted as a topical report, and will inform DOE ..."**
- **A determination by the NRC staff that, based on the annotated outline, the report may be submitted as a topical report does not commit the NRC staff to approving the completed report, or even to accepting the completed report for review**

Background of the AO for Seismic Topical Report II

- **NRC provided the DOE with the Topical Report Review Plan 2/28/94**
- **DOE submitted the annotated outline for Seismic Topical Report II (Seismic Design Methodology for a Geologic Repository at Yucca Mountain) - 8/22/94**
- **NRC responded by letter of 11/3/94**
 - **"the annotated outline ... is considered incomplete by the staff."**
 - **"The NRC concerns listed above should be addressed in the revised version of the AO of the topical report."**

NRC Concerns from the Review of the AO for Seismic Topical Report II

- 1) "DOE needs to justify, with adequate supporting data on performance of subsurface facilities in repository environment, the appropriateness and applicability of this (seismic design) methodology."**
- 2) (If the report does not cover post-closure performance concerns)"Ultimate seismic design for underground drifts and ground support systems may not be conservative from the point of view of meeting post-closure performance objectives of 10 CFR Part 60."**
- 3) "... the outline ... does not indicate how fault offsets will be assessed either deterministically or probabilistically. This topic should be addressed in some detail."**
- 4) "... it is not clear how the method to be proposed could/would address concerns of SCA Comment 121 (repetitive loads) ... "**

NRC Conclusions from the Review of the AO for Seismic Topical Report II

- **"... although the AO for the topical report on the seismic design methodology for a geologic repository at Yucca Mountain contains many items for describing the methodology needed to determine the appropriate seismic hazard levels for design, it is considered incomplete by the staff."**
- **"The NRC concerns listed above should be addressed in the revised version of the AO of the topical report."**

DOE Perspective

- **DOE has provided an annotated outline that describes the proposed scope and content of Seismic Topical Report II in sufficient detail for the NRC staff to determine if it may be submitted as a topical report**
- **Annotated outline for the topical report is not designed to provide justification for the technical approach - such justification must await the report itself**
- **DOE welcomes input from the NRC on its concerns, and these concerns will be considered in the development of the topical report**
- **It appears that the NRC staff expectations for content and level of detail in the topical report annotated outline go well beyond the NRC's Topical Report Review Plan**

Proposed Action

- **DOE believes the annotated outline for Seismic Topical Report II describes in sufficient detail, a report that may be submitted to the NRC as a topical report**
 - This does not commit the NRC to accepting the proposed DOE methodology
 - This does not commit the NRC to anything beyond performing an acceptance review on the topical report
- **DOE and NRC should improve communication through all available means**
 - formal letters
 - technical exchanges
 - Appendix 7 visits
 - telephone conferences



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Nuclear Regulatory Commission*

DOE DOCUMENT REDUCTION

Presented to:

**NRC/DOE MANAGEMENT MEETING
December 6, 1994**

By:

Joseph J. Holonich

**Division of Low-Level Waste Management and Decommissioning
Office of Nuclear Material Safety and Safeguards**



*United States
Nuclear Regulatory Commission*

BACKGROUND

- **September Management Meeting DOE Requested Reduction in Number of Submittals to NRC**
- **NRC Proposed Approach**



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CURRENT DOE DOCUMENTS

- **Site Characterization Plan (SCP)**
 - **Responses to Site Characterization Analysis (SCA) Issues**
 - **Progress Reports**

- **License Application Annotated Outline (LAAO)**

- **Study Plans**
 - **Initial Plans**
 - **Revisions**
 - **Reponse to Comments and Questions**



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CURRENT DOE DOCUMENTS - CONTINUED

- **Topical Reports**
- **Total System Performance Assessments**
- **Technical Reports**
- **Major Design Reports**
- **Waste Acceptance Reports**
- **Letter Reports**



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PROPOSED REDUCTION OF DOE'S SUBMITTALS

- **Limit Submittals to Four Types of Reports:**
 - **SCP Progress Reports**
 - **LAAO**
 - **Topical Reports**
 - **Study Plans**

- **Submittals May Reference Other DOE Reports or Documents Not Among the Four Types Listed Above**



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CONSOLIDATION OF INFORMATION

- **Reduces Number of Submittals**
- **Places Information Into a Document With a Catalog Number**
- **Helps Better Control Tracking of Submittals and Responses**
- **Encourages DOE to Integrate Program by Addressing Issues in Context of Other Areas**
- **Helps DOE Better Define What Needs To Be Done to Demonstrate Compliance With 10 CFR Part 60 For the Selected Repository Site.**



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REVIEW APPROACH

- **Full Review (100% - All Reports/All Areas)**
 - **Progress Reports**
 - **LAAO**

- **Selective Review (Some of These Reports/Some Areas)**
 - **Study Plans (SCA Comment, Significant Issue)**
 - **Material Referenced in Progress Reports and LAAO**

- **Audit/Infield Verification Reviews**

- **On-site Representative Rotations**



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EXAMPLES OF CONSOLIDATION

LAAO CHAPTER 5

- **Type of Document: Topical Reports on Multiple Purpose Canisters (MPC)**

Basis: MPC Needs To Be Evaluated in Light of Engineered Barrier System and Total System. Methods Need To Have Context of LA. Information Is Not Generic and Used in Multiple Areas.



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EXAMPLES OF CONSOLIDATION - CONTINUED

LAAO Chapter 6

- **Type of Document: Total System Performance Assessments**

Basis: TSPAs Are the Demonstration of Compliance With Overall Systems Standards. If Program Is Developing, Review Needs To Be Conducted in Light of Ultimate Licensing Needs.



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EXAMPLES OF CONSOLIDATION - CONTINUED

LAAO CHAPTER 10

- **Type of Document: Quality Assurance Plans**

Basis: Program Is Final, and Should Be Revised in Terms of Licensing Review So Feedback Can Be Given in Context of Final Application.



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TOPICAL REPORTS

- **NRC February 28, 1994 Letter to Mr. Shelor**
 - **Topical Reports Would Deal With Application of Methodologies to Particular Technical Issues at a Specific Site.**
 - **This Was the Basis on Which NRC Accepted the Extreme Erosion Topical for Review.**
- **Process Has Not Worked Well To Date**



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PROPOSED CHANGE TO TOPICAL REPORTS

- **Topical Reports Will Be Reserved for Generic Topics**
 - **Methods for Evaluating the Presence or Absence of PACS**
 - **Design Methods Applied to a Number of Systems**

- **Single Topics Are Better Served Directly in LAAO.**
Technical Information That Supports the Information in the AO Can Be Referenced in the AO
 - **Extreme Erosion**
 - **Groundwater Travel Time**
 - **MPC Criticality**



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BENEFITS OF THE REVISED APPROACH

- **Gets High-Level Waste Program In Line With Agency Approach to Licensing, 100% Review of High Order Documents/Audits of Technical Details**
- **Improves the Program's Focus on Ultimate Objective - a High Quality and Complete License Application**

DOE Priority List

NRC's response to DOE's November 14, 1994 letter which responds to NRC's QA concerns letter of October 13, 1994.

Seismic Topical Report I - response to DOE letter of 11/9/94, providing additional information needed by the NRC to perform its review of that report.

Substantially Complete Containment - feedback on supplemental responses on SCA Comment 80 and Question 47, submitted by letter of 9/20/94.

Response to DOE Petition for Rulemaking (4/19/90), requesting quantitative accident dose criteria [Note: this issue is related to a potential NRC proposed rule on design basis events and the definition of important to safety].

Two study plans which have been sent to the NRC for review:

- 1) 8.3.1.2.2.6, Rev. 1, "Characterization of gas phase movement in the unsaturated zone," submitted to the NRC on 10/7/93. It is of particular interest because it is related to the pneumatic pathways issue.
- 2) 8.3.1.3.5.1/2, "Dissolved species concentration limits and colloid behavior," submitted to the NRC on 9/17/93. It has been in the NRC for review for a long time.

NRC's response to DOE's August 29, 1994 letter which notifies NRC that DOE will be requesting a letter of "no objection" with respect to 10 CFR Part 60 requirements for the multipurpose canisters.

Burnup credit topical report (planned submittal - early spring 1995)

Status of applications for certification of GA-4 and GA-9 transport casks (GA-4 actual submittal - August 1994) (GA-9 submittal - July 1994)

Multipurpose canister SAR submission(s) - spring 1996