

Department of Energy

Washington, DC 20585

MAY 27 1993

Mr. Joseph J. Holonich, Director
Repository Licensing and Quality Assurance
Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Holonich:

The U.S. Department of Energy (DOE) is transmitting the enclosed DOE Mined Geologic Disposal System (MGDS) Annotated Outline (AO) Skeleton Text for the Preparation of a License Application, Revision 2, dated May 28, 1993, for your information and to facilitate your guidance to us.

Revision 2 of the MGDS annotated outline skeleton text consists of changes made to Chapter 5, Section 5.2; Chapter 6, Sections 6.2, 6.3, 6.4, and 6.5; and Chapter 8, Sections 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, and 8.6. This revision is being issued in a "change page" format designed to replace current text in controlled copies of Revision 1 of the MGDS AO with new text on a section by section basis.

The changes to these sections include technical changes and format changes. The primary format change involves consolidating the planning package information into the skeleton text to reduce redundancy, to correct inconsistencies between the skeleton text and the planning packages, and to simplify review of the skeleton text. Therefore, much of the planning package material has been eliminated from the sections contained in Revision 2. In addition, change indicators (marginal change bars) are not being used in this revision since each of the Revision 2 sections were either substantially rewritten or consist of totally new text.

The technical changes consist of new skeleton text and text changes resulting from comments contained in your January 29, 1993, letter. In that letter, you also indicated that comment number three in your July 13, 1992, letter, on the April 17, 1992 version of the AO was resolved in the September 30, 1992, version of the AO (Revision 1). DOE believes that comment number two of your July 13, 1992, was also addressed in Revision 1. Specifically, in Revision 1, Section 5.1.5.2 was revised to delete text describing post-closure releases and inserting new text addressing radiological safety

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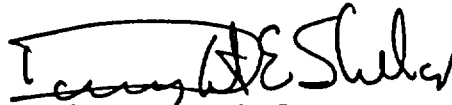
during the operational period prior to closure. In response to your first comment in your July 13, 1992, letter, DOE agrees that Section 5.1.2 should discuss all waste forms to be disposed of in the repository. However, at this time, no changes have been made in Section 5.1.2 because there are no plans to dispose of wastes other than spent nuclear fuel and high-level waste glass in the repository.

Your January 29, 1993, letter contained five comments, two were related to performance assessment (PA); the other three were related to text in Section 9.1. Section 9.1 was not revised in Revision 2 of the AO, therefore, your three comments will be addressed in future versions of the AO. In response to your first PA comment, Tables 6.2H and 6.2S were modified by adding Information Needs INN 6.2-006 and INN 6.2-006, respectively, to indicate that these tables are considered to be incomplete. Information Need INN 6.2-007 is called for by December 1994 between the second and third iterations of total system performance assessment. It is felt that at that time the performance assessment of Yucca Mountain will be mature enough to complete Table 6.H. Similarly, INN 6.2-006 is expected in December 1993 at the end of the second iteration of performance assessment and will be used to complete Table 6.2S. The information described above and the screening of processes and events and scenarios in Section 6.3 will be used to determine the location in the tables of processes and events that affect the repository performance and to eliminate those that do not have a significant effect on the repository. Addition of these analyses to Tables 6.2H and 6.2S may broaden the range of processes and events and locations in the tables where they could affect repository performance. At the time that these Information Needs become available and the information is incorporated into the AO, a decision will be made as to the completeness of these tables. Should the tables be found to be incomplete, additional information needs will be added.

In response to your second PA comment, DOE agrees that inappropriate examples had been provided in the Form 2 Planning Package. The modifications of the format of the AO presentation in Revision 2 eliminated the Planning Packages which corrected this error. We hope that these changes will make the AO easier to review.

DOE will transmit the changes for Revision 3 of the MGDS AO to you in November, 1993. Accordingly, your guidance or comments on this iteration would be most useful if provided by the end of July, 1993, to enable us to respond, as appropriate, in the November iteration. Please call Corinne Macaluso of my staff at (202) 586-2837, if you have any questions.

Sincerely,



Dwight E. Shelor
Associate Director
Office of Systems and Compliance
Office of Civilian Radioactive
Waste Management

Enclosure: *on the shelf* 9306020100 930527 *in 12/10/93*
Mined Geologic Disposal System (MGDS) Annotated Outline Skeleton
Text for the Preparation of a License Application, Revision 2,
May 28, 1993 (25 copies)

cc: w/ enclosure

C. Gertz, YMPO

T. J. Hickey, Nevada Legislative Committee

R. Loux, State of Nevada

D. Bechtel, Las Vegas, NV

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J. Pitts, Lincoln County, NV

J. Hayes, Esmeralda County, NV

B. Mettam, Inyo County, CA

Instructions/Remarks

1. Volume I: Replace the cover page, spine and the identification page stamped with your controlled copy number with the set dated 5/28/93, attached. Replace the Table of Contents with the set dated 5/28/93, attached.

2. Volume II: Replace the cover page, spine and the identification page stamped with your controlled copy number with the set dated 5/28/93, attached. Replace the following individual sections with the new sections dated 5/28/93:
 - Section 5.2, Assessment of Compliance with 10 CFR Part 60
 - Section 6.2, System Description
 - Section 6.3, Assessment of Compliance: Cumulative Release of Radioactive Materials
 - Section 6.4, Assessment of Compliance: Undisturbed Performance
 - Section 6.5, 10 CFR Part 60 Criteria
 - Section 8.0, Performance Configuration Program
 - Section 8.1, Performance Confirmation for the Natural Systems of the Geologic Setting
 - Section 8.2, Performance Confirmation for the Structures, Systems, and Components of the Geologic Repository Operations Area
 - Section 8.3, Performance Confirmation for the Engineered Barrier System
 - Section 8.4, Radiation Protection
 - Section 8.5, Analysis of Changes from Performance Confirmation Baseline
 - Section 8.6, Unresolved Safety Questions