

FEB 01 1994

Mr. Dwight E. Shelor, Associate Director
 for Systems and Compliance
 Office of Civilian Radioactive Waste Management
 U. S. Department of Energy
 1000 Independence Avenue, SW
 Washington, DC 20585

Dear Mr. Shelor:

SUBJECT: FORMAT OF CHAPTER 3 OF THE REPOSITORY ANNOTATED OUTLINE

My staff is currently reviewing the U.S. Department of Energy's (DOE's) "MGDS Annotated Outline Skeleton Text for the Preparation of a License Application: Revision 3" (AO), dated November 30, 1993. While the staff's review is not yet complete, one concern has been identified which I believe deserves early communication to you. The staff is concerned with DOE's decision not to implement the repository systems-based format in AO Section 3.3, "Assessment of Compliance with 10 CFR 60." No explanation has been provided for this change in approach. In the earlier iterations of the AO, it appeared that DOE intended to follow the repository systems-based approach which was provided as guidance in Draft Regulatory Guide DG-3003, "Format and Content for the License Application for the High-Level Waste Repository" (FCRG).

The staff has consistently followed two basic principals in structuring its license application development and review guidance in the high-level waste repository program. It has followed a repository systems-based approach and it has used a parallel "description/assessment" structure within each chapter in which a repository system (i.e., the Natural System, the Geologic Repository Operations Area, the Engineered Barrier System) is discussed. This approach follows the logic of 10 CFR 60.21, the section of the regulation dealing with content of the license application. Both the FCRG and the License Application Review Plan (LARP) use this repository systems-based approach to organize the information required for the presentation and review of a license application pursuant to 10 CFR Part 60. The Chapters of the FCRG and LARP that consider the major repository systems are divided into sections on the description of the system and assessment of system's compliance with the relevant requirements from 10 CFR Part 60. These chapters are further divided, as appropriate, into subsystems. For example, the chapters of the FCRG and the LARP dealing with the natural system have sections in which its four subsystems--the geologic, hydrologic, geochemical, and climatological/meteorological subsystems--are first described. Each chapter then has a section with a parallel structure to the description section in which compliance with the relevant requirements of 10 CFR Part 60 is assessed for each subsystem.

DOE has followed the repository systems-based approach in AO Section 3.1, "Description of Individual Systems and Characteristics of the Site." However, for the assessment of compliance with 10 CFR Part 60, AO Section 3.3 simply repeats the list of the siting criteria as they appear in 10 CFR 60.122 (i.e., the criteria are not separated into the four subsystems). The staff believes that since its review of the information in the license application pertaining

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to the natural system will be carried out in terms of the identified subsystems, it would be most useful for the information to be provided that way in the license application.

The repository systems-based approach recommended to DOE by the staff in the FCRG and followed by the staff in the LARP allows for relevant information on related topics to be presented and reviewed in a single location. It allows for staff determinations to be made on the information presented at the appropriate level, and then for higher level determinations to be made. DOE is not required to follow the format for the license application presented in the FCRG, but another format will make it more difficult for the staff to carry out its review. I would request that you reconsider the decision not to implement the repository systems-based approach recommended in the FCRG, or explain why the approach presented in the AO is considered beneficial.

Enclosure 1 summarizes this concern in the standard format used by the staff to communicate open items to DOE. The staff's complete comments on the AO will be provided later. If you have any questions on this subject, please contact Mark Delligatti at (301) 504-2430.

Original Signed by *Kenneth R. Hooks*
for Joseph J. Holonich, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

- cc: R. Loux, State of Nevada
- T. J. Hickey, Nevada Legislative Committee
- J. Meder, Nevada Legislative Counsel Bureau
- R. Nelson, DOE/NV
- 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
- F. Sperry, 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

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NAME	MDelligatti		RJohnson <i>RL</i>		JHolonich		
DATE	01/28/94		1/31/94		1/21/94		

ENCLOSURE

INITIAL NRC COMMENT ON NOVEMBER 30, 1993, VERSION OF DOE'S AO

COMMENT 1

The repository systems-based format recommended in Draft Regulatory Guide DG-3003, "Format and Content for the License Application for the High-Level Waste Repository," (FCRG) is not followed in Section 3.3.

BASIS

- In Section 3.3, the siting criteria from 10 CFR 60.122 are simply listed, as they appear in the regulation--a straight listing of the Favorable Conditions followed by a straight list of the Potentially Adverse Conditions, as opposed to grouping the conditions according to the four subsystems (Geologic, Hydrologic, Geochemical, Climatological/Meteorological) identified in Section 3.1.
- Since previous iterations of the AO followed the format recommended in the FCRG, deviations from the format recommended in the FCRG should be explained in the text of the AO or in a cover letter.

RECOMMENDATION

Revise Section 3.3 to follow the repository systems-based approach recommended in the FCRG and followed in other portions of the AO, or explain why this nonsystems-based approach is preferable.