



Department of Energy

Washington, DC 20585

DEC 14 1989

Mr. John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level
Waste Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Linehan:

This letter is in response to letter your of August 25, 1989, transmitting of the Table of Contents (TOC) for the draft Format and Content Regulatory Guide (FCRG) for the License Application for the High-Level Waste Repository. We appreciate receiving the staff's proposed TOC for the FCRG in advance.

For your information, the following describes our initial observations regarding the FCRG TOC. We find the repository systems based approach adopted by the staff to be appropriate. As you are aware, format and content guides previously issued by the NRC have used a different format. For example, the "Standard Format and Content of License Applications for Disposal of High-Level Radioactive Waste in Geologic Repositories", June 1979, placed natural system and design criteria in early chapters (Chapters 2 and 3, respectively), followed by system design descriptions (Chapters 4 and 5), and lastly presented the results of analyses (Chapter 7). The current approach appears to be a more structured and logical approach, requiring the listing of relevant regulations first, the description of the natural system or the design second, and finally the assessment and analyses to demonstrate compliance with the regulatory requirements of 10 CFR Part 60. This approach will result in a well organized document and, should adequately support the development and review of the license application.

Your approach could be enhanced by the addition of another element in the SAR. This should consist of a list developed by the applicant of design criteria and more specific and quantitative criteria for the natural system. The list would take the abstract requirements presented in the regulations and transform them to more readily-measurable, detailed requirements or parameters. These criteria could be presented following the listing of applicable regulations and prior to the description of the natural system or the design.

We expected that the Safety Analysis Report (SAR) and the General Information Report (GIR) would be two separate documents. The FCRG TOC suggests that the GIR and SAR would be combined into one document. This seems to be a positive step that could reduce redundancy of information that would otherwise appear in both

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As indicated in your letter, the completed FCRG TOC will be developed to one or more additional levels of detail, as appropriate. Thus, we are unable at this time to determine whether other information required by 10 CFR Part 60 to be addressed in an application has yet been fully developed in the FCRG TOC. Examples may include the following:

- o Retrieval of waste (60.21(c)(12), 60.111(b), 60.133(c))
- o Geography/demography (60.21(c)(1), 60.122(a)(6))
- o Material incorporated by reference (60.23)
- o Facility-generated waste (60.132(d))
- o Effluent and environmental monitoring (60.21(c)(7), 60.132(c)(1)&(2))
- o Personnel qualifications and training (60.21(c)(15)(iii), 60.160, 60.161, 60.162)
- o Individual protection (60.112, 40 CFR 191.15)
- o Groundwater protection (60.112, 40 CFR 191.16)
- o Pre-waste-emplacement groundwater travel time (60.113(a)(2), 60.122(b)(7))
- o Plans for other use of Geologic Repository Operations Area (GROA) (60.21(c)(15)(vii))
- o R&D to confirm adequacy of design and barriers (60.21(c)(14))

While the FCRG TOC addresses potentially adverse conditions (Section 5.3.6), it does not appear to address explicitly favorable conditions or the mitigating effects favorable conditions may have on potentially adverse conditions as suggested in Part 60, Section 60.122(a)(2). Some clarification of what is meant by "Repository Induced Phenomena" (FCRG Section 4.2) and the kind of information that would be included under that heading would be helpful.

If you have any questions or would like to discuss this matter, please contact me or Steve Rossi of my staff at 586-9433.

Sincerely,



Gordon Appel, Chief
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