

Mr. Ralph Stein, Associate Director
Office of Systems Integration and Regulation
Office of Civilian Radioactive Waste Management
U. S. Department of Energy RW-24
Washington, D. C. 20545

DEC 19 1988

Dear Mr. Stein:

SUBJECT: COMMENTS ON TECHNICAL ASSESSMENT REVIEW NOTICE

The purpose of this letter is to transmit several concerns identified by the U. S. Nuclear Regulatory Commission (NRC) staff on the Technical Assessment Review (TAR) Notice provided by the U. S. Department of Energy (DOE) at the December 8, 1988 meeting on the exploratory shaft facility (ESF) design acceptability analysis (DAA). Based on its review of the TAR Notice, the NRC staff has identified two general and 19 specific comments or questions. These are detailed in the enclosure. In addition to the staff comments, the State of Nevada also has comments on the Notice. Both the staff and State of Nevada comments were discussed with representatives from DOE on a December 14, 1988 conference call.

In order for the staff to be able to complete its review of the ESF DAA on a timely basis, DOE should provide its response to these comments as part of the DAA submittal. If DOE cannot meet this schedule, please inform the staff of this within five working days of the date of this letter. If you require any additional assistance, please contact the NRC project manager for this subject, Mr. Joe Holonich, who can be reached at (301) 492-3403 or FTS 492-3403.

Sincerely,

ORIGINAL SIGNED BY

John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management

cc: C. Gertz, DOE/NV
R. Loux, State of Nevada

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* HLG P concurs on comments 12 & 18 only; others were not evaluated.

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ENCLOSURE
STAFF COMMENTS ON TAR NOTICE

General Comment 1

Throughout the document, the Department of Energy (DOE) states that the issues of importance pertain to (1) waste isolation, (2) ability to characterize the site, and (3) representativeness of the site. At the December 8, 1988 meeting, the NRC staff stated that the design acceptability analysis (DAA) needs to cover all of the applicable 10 CFR Part 60 requirements. DOE should revise the Technical Assessment Review (TAR) to incorporate this.

General Comment 2

Where is the need to conduct a quality assurance (QA) surveillance, if not an audit, covered in the TAR? The staff cannot find a description of this activity. The only mention of QA is on page 10 where the TAR states: "Background data/material may be subject to audit by personnel from the Nuclear regulatory (sic) Commission or the U. S. Department of Energy." This effort is not sufficient. Therefore, DOE should revise the TAR Notice to describe how and to what level QA surveillances or audits will be performed.

Comment 1, Page 1, Section 2.1

Item (c) in Section 2.1 deals with how the design criteria and interfaces considered during Title I ESF design address the applicable 10 CFR Part 60 requirements and interfaces. This does not achieve the objectives of item 1(c) of the DAA which requires that DOE generate new criteria for those portions of 10 CFR Part 60 that were not considered in the design. Section 2.1 limits the approach to only those that were considered during Title I design.

Comment 2, Page 2, Section 2.2

In this section DOE discusses several documents that are to be included in the TAR package. Not included are the comments on the 50% and 100% design reviews. DOE should provide the rationale for not including these two documents. In addition, DOE should discuss how reference documents will be included in the TAR.

Comment 3, Page 2, Section 2.3.1

On the fourth line from the bottom of the page, DOE states that "Some of the products from the DOE/HQ review will be used in Part I, Element I of the TAR." Please identify the specific products or types of products that should be considered.

Comment 4, Page 4, Section 2.3.1 (Continued)

In the last paragraph of this section, fourth line from the end, DOE states that: "The TAR team will assess the completeness of the coverage of these requirements in the SDRD and will identify any requirements not adequately covered." First, the staff is concerned that the assessment will not cover all of the applicable 10 CFR Part 60 requirements because DOE has limited the scope of the TAR to cover only those requirements that fulfill the three major objectives. Second, DOE should add the following words to the end of the sentence, "... or that conflict with 10 CFR Part 60 requirements."

Comment 5, Page 4, Section 2.3.2

Please clarify the scope of Element 2.

Comment 6, Page 4, Section 2.3.2

Midway through Section 2.3.2 DOE makes the following sentence.

"Performance criteria and constraints for the 10 CFR Part 60 requirements that were found to be relevant to the NRC concerns in TAR Part I, Element 1, will be correlated with the subset of design /physical features and interfaces that are related to the NRC concerns."

What are the subset of design/physical features and interfaces and how are they determined?

Comment 7, Page 4, Section 2.3.2

It does not appear that DOE considered organizational interfaces in its evaluation of interfaces. Please provide a description of how organizational interfaces are considered.

Comment 8, Page 5, Section 2.3.4

In step a. of the steps listed in this section, the TAR states: "critical design features relevant to NRC concerns?" What are the critical design features and how are they determined?

Comment 9, Page 5, Section 2.3.4

In Step 2. of the DAA, DOE is suppose to address the appropriateness of the data used in the analysis as well as describe how uncertainties are considered. Where and how are uncertainties considered in steps a. through i?

Comment 10, Pages 4 and 5, Sections 2.3.3 and 2.3.4

In Section 2.3.3, DOE describes the process for demonstrating the adequacy of the design, and in Section 2.3.4 discusses how the appropriateness of data will be determined. Are these two steps reversed? If not, why not?

Comment 11, Page 5, Section 2.3.4

Should step h. read: Identify the differences between (d) and (g); instead of between (c) and (g)?

Comment 12, Page 6, Section 2.4

How are the recommendations in the Bertram report (SAND 84-1003) being considered?

Comment 13, Page 8, Section 2.4.3

Why did DOE exclude flooding and erosion from the parameters to be considered in the alternatives analysis?

Comment 14, Page 8, Section 2.4.3

There is no discussion of how DOE considered site representativeness and the ability to characterize the site in its determination of ESF location. In addition, DOE does not describe how alternatives to the major design features of the ESF will be considered. Where and how will this be done?

Comment 15, Page 8, Section 3.1

Why is Reynolds Electric and Engineering Company (REECO) not included in the organizations involved in the TAR?

Comment 16, Page 9, Section 3.2

Several individuals who are identified as suggested reviewers or specialists for the TAR effort have been previously involved in the ESF design. How does DOE ensure the independence of the TAR with their involvement?

Comment 17, Page 9, Section 3.2

Why are individuals from the Los Alamos National Laboratory and REECO not included on the the list of suggested reviewers? In addition, a representative from Battelle Pacific Northwest Laboratory (PNL) is listed as a suggested reviewer; however, PNL is not included on the list of organizations involved in the TAR. Please explain this discrepancy.

Comment 18, Page 9, Section 3.2

There are no dedicated geologists on the list of suggested reviewers. Please explain why DOE did not consider one?

Comment 19, Page 11, Section 4.2

On the last paragraph of page 11, DOE states that recommendations for changes that should be made to the SCP will be incorporated into semiannual progress reports. If significant deficiencies are found with the information in the SCP, DOE cannot wait for semiannual progress reports. However, there is no provision for this in the TAR. Please provide a discussion of what steps will be followed if a significant deficiency is found.