

REVIEW PLAN FOR  
NRC STAFF REVIEW OF DOE  
ANNOTATED OUTLINE  
April 4, 1995 - 10:48am

DIVISION OF WASTE MANAGEMENT  
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555

ENCLOSURE 1

## 1.0 INTRODUCTION

The Department of Energy (DOE) is responsible under the Nuclear Waste Policy Act of 1982, as amended (NHPA), for carrying out a comprehensive national program that has as its goal the eventual construction and operation of a geologic repository for the permanent disposal of high-level nuclear waste (HLW). At the staff's suggestion, DOE has undertaken the development of an annotated outline (AO) for the license application (LA) for a this geologic repository. The development of the AO will be ~~this is being carried out as an~~ iterative process carried out by DOE with revisions being developed and provided to NRC on an ~~initial semi-annual, and later,~~ annual basis.

The Overall Review Strategy (ORS) gives general guidance to the NRC staff in conducting its licensing and pre-licensing reviews, which includes ~~The NRC staff is conducting the~~ an on-going process of pre-licensing reviews consultations with DOE on its program. These ~~are described in the Overall Review Strategy (ORS).~~ One of the pre-licensing review strategies in ORS is for the staff to review and comment on the AO. ~~By implementing this strategy, the staff is able to give DOE timely guidance on its interpretation of the applicable regulatory requirements and the staff can comment on what information it believes is needed to prepare a complete and acceptable LA.~~ The guidance in this review plan provides the framework for implementation of the ORS pre-licensing review strategy ~~AO review strategy.~~

## 2.0 PURPOSE, OBJECTIVES, AND SCOPE

### 2.1 Purpose

The primary purpose of the AO review is to provide timely guidance to DOE regarding the completeness and adequacy of their LA through an preliminary evaluation of:

1. DOE's interpretation of the requirements in 10 CFR Part 60 and any other applicable regulations, and
2. the adequacy of the available technical and administrative information provided by DOE to demonstrate compliance with the requirements of 10 CFR Part 60 and any other applicable regulatory requirements.

~~regarding a complete and high quality LA to DOE for consideration in the next iteration of the AO.~~ The guidance is provided in the form of the staff's Pre-licensing Evaluation Report (PER) which contains AO open items; evaluations of DOE's resolution of previous open items; and, where sufficient technical information is provided, NRC's evaluation of DOE's demonstration of compliance with requirements of 10 CFR Part 60 or other applicable regulatory requirements. The guidance is iterative in nature and will be updated yearly as the result of the NRC staff annual AO review, until such time as DOE submits the official license application.

### 2.2 Objectives

To accomplish the purpose ~~of the NRC staff review of the AO~~ review, the following specific objectives must be achieved:

1. Identify and document, as AO open items, new concerns with the accuracy of DOE's understanding and interpretations of 10 CFR Part 60 and all applicable NRC guidance, including the License Application Review Plan (LARP). ~~staff guidance regarding a complete and acceptable LA.~~
2. Evaluate and document the adequacy the available technical and/or administrative information provided by DOE to demonstrate compliance with the requirements of 10 CFR Part 60 and any other applicable regulatory requirements.
32. Evaluate DOE's resolution of all previous open items including previous AO Open Items and document staff agreement or disagreement with DOE resolution, ~~if appropriate.~~
43. Document potential changes to the AO, FCRG and LARP that will be necessary to maintain appropriate consistency among the structures and formats of these documents.

### 2.3 Scope

~~While each AO review should~~ The primary focus of each annual AO review will be primarily on the most recent revisions provided by DOE. ~~However, the staff may provide comments on any part of the AO during each review cycle. If DOE proposes in the letter transmitting the AO that one or more NRC open items is resolved based upon material specified in the AO, the staff will include a review of those open item within the scope of the review.~~

In addition to the annual AO review, periodic reviews of the entire AO may ~~shall~~ be scheduled by the staff following completion or any revision of major guidance documents, including DG-3003, "Format and Content for the License Application for the High-Level Waste Repository" (FCRG) and NUREG-1323, "Draft License Application Review Plan for a Geologic Repository for Spent Nuclear Fuel and High-Level Radioactive Waste Yucca Mountain Nevada Site" (LARP). Upon completion of such reviews, the staff shall provide comments to DOE reflecting any major format or structural changes to the FCRG which would also need to be made to the AO.

### 3.0 Review Approach

The staff should use the FCRG, ~~and the applicable sections of the LARP, and any applicable regulation, regulatory guide, or policy (Review Strategies), as appropriate, in conducting the its review. This should include how well DOE is following the FCRG.~~

### 4.0 Resolution of NRC Open Items

~~If DOE has proposed in its letter transmitting the AO that one or more NRC open items be resolved based upon material specified in the AO, the staff will make a determination whether it agrees with DOE that those open items are resolved. The NRC staff is to review the material presented to support resolution and needs to indicate agreement on complete or partial resolution (certified by signature or the appropriate Section Leader and Branch Chief) and, if necessary, an explanation of why the material provided for resolution is inadequate. The results of the NRC staff's evaluations should be documented in the format provided in Section 6.0 and will be recorded in OITS~~

~~and included in the letter to DOE.~~

#### 45.0 Activities and Products

The review consists of the following steps:

1. The Project Manager (PM) transmits the AO revision to all holders of DOE controlled copies of the AO (Branch Chiefs, Section Leaders, LARP/AO team members).
- ~~2. Training session is held for reviewers.~~
32. Review is conducted within the defined scope, using the defined approach to achieve the defined objectives. ~~A (with a review status meeting is held at the midpoint of review to facilitate the exchange of information, to aid in keeping the presentation of information consist, and to provide early identification of major issues, if requested by reviewers or PM).~~
43. As a result of the review, the reviewer should prepare their input to the PER. As previously stated, the PER will contain AO open items; evaluations of DOE's resolution of previous open items; and, where sufficient technical information is provided, NRC's evaluation of DOE's demonstration of compliance with requirements of 10 CFR Part 60 or other applicable regulatory requirements.
  - a. PER Main Body - Where DOE has provided sufficient technical information to demonstrate compliance with specific requirements of 10 CFR Part 60, the staff should prepare the corresponding section of the PER. The PER should provide the basis for the staff's acceptance of DOE's information using the License Application Review Plan (LARP) as the general format for presentation. Each PER section should provide DOE's technical information, DOE's conclusions, documentation of NRC's evaluation, and the basis for NRC staff conclusions. An example PER section is provided in Appendix 1 to the AO Procedures.
  - b. AO Open Items - Comments and questions, approved by the ~~provided to PM by Section Leaders, with Branch Chief,~~ should be provided to the PM on the form provided in Appendix A. This form should be filled out completely and have the required approval signatures. These forms will be included as an Appendix to the PER. ~~approval.~~ A sample AO form is provided as Appendix 2 to the AO Procedures.
  - c. Resolution of Previous Open Issues - Those open items for which NRC agrees are resolved, the technical reviewer should write the technical information necessary to close the issue in the appropriate section of the PER. The appropriate form should be submitted to the PM, with the Branch Chief signature, that closes the Open Item in RPD and defines the rationale for the resolution of the issue. These forms will be included in the PER as a separate Appendix. A sample OITS form for closure of an open item is provided as Appendix 3 to the AO procedures

- d. Non-resolution of Previous Open Issues - Those open items for which NRC cannot agree with DOE's proposed resolution, the technical reviewer should formally update the existing open item. These forms will be included in the PER as a separate Appendix. A sample OITS form for update of an open item is provided in Appendix 3 to the AO procedures
4. The PM is responsible for all the administrative aspects of PER development, including the organizational structure, format, and editing. Staff input to the PER should be provided to the PM, in both hard and electronic copy, under signature of the reviewers' Branch Chief.
  5. The PM determines whether the HLWM Director and Deputy Director need to be briefed on the comments. If so, a briefing is done.
  6. The PM prepares a letter from the Project Director to DOE transmitting the PER ~~detailed technical comments and questions~~.
  7. The Projects Branch Chief, with concurrence of PAHB and ENGB, ~~Director~~ will issue the cover letter and review package to DOE with copies sent to the State and affected units of local government and Indian Tribes.
  8. The PM updates the OITS by arranging for entry of the new AO open items resulting from the review and ~~and closure of previous open items to for recording of~~ the progress toward resolution of the existing open items based on the Review.

**APPENDIX 1**  
**EXAMPLE**  
**PRE-LICENSING EVALUATION REPORT**

[Sample to be provided]

## **APPENDIX 2**

### **AO OPEN ITEM IDENTIFICATION AND TRACKING**



#### DEFINITION OF OPEN ITEMS:

New AO open items, i.e., ~~AO~~<sup>AOLA</sup> substantial objections, comments, or questions (as these terms are defined in Appendix A to this Review Plan) that the staff presents in its written review of the AO, and the staff's evaluation of DOE's resolution of AO open items, will be entered in the staff's Open Item Tracking System (OITS) that is being used to track the progress toward resolution of NRC open items.

Comment: a concern with the accuracy of DOE's understanding and interpretations of 10 CFR Part 60 or staff guidance regarding a complete and acceptable LA.

Question: a major concern with the presentation of information in the AO, such as missing information that should be in the AO, level of detail, contradictions, and ambiguities that preclude understanding a part of AO, thereby preventing the staff from being able to comment. NRC would recommend timely DOE response to such questions. Questions should be reserved for major items; minor inconsistencies, etc., should not be included.

[Form provided here]

**APPENDIX 3**

**FORMAT FOR UPDATE OR CLOSURE OF PREVIOUS DOE OPEN ITEMS**

[Form provided here]