COMPLIANCE DETERMINATION STRATEGY

RRT 2.6 LICENSE SPECIFICATIONS

APPLICABLE REGULATORY REQUIREMENTS:

10 CFR 60.21(c)(6)
10 CFR 60.43(a)
10 CFR 60.43(b)

TYPES OF REVIEW:

Acceptance Review (Type 1)
Safety Review (Type 3)

RATIONALE FOR TYPES OF REVIEW:

Acceptance Review (Type 1) Rationale:

This regulatory requirement topic is considered to be license application-related because, as specified in the license application content requirements of 10 CFR 60.21(c) and the regulatory guide "Format and Content for the License Application for the High-Level Waste Repository (FCRG)" it must be addressed by the U.S. Department of Energy (DOE) in its license application. Therefore, the staff will conduct an Acceptance Review of the license application for this regulatory requirement topic.

Safety Review (Type 3) Rationale:

This regulatory requirement topic is considered to be related to radiological safety, retrievability, containment, and waste isolation. This regulatory requirement topic concerns license specifications for a license to receive and possess high-level radioactive waste and spent nuclear fuel at a geologic repository, and focuses on probable license conditions which are required to be included in the license for construction authorization.

It is a requirement for which compliance is necessary to make a safety determination for construction authorization as defined in 10 CFR 60.31(a) (i.e., regulatory requirements in Subparts E, G, H, and I). Therefore, the staff will conduct a Safety Review of the license application to determine compliance with the applicable regulatory requirements.

There appears to be no lack of certitude as to the methodology needed to determine or demonstrate compliance with this regulatory requirement topic. Factors considered in making this determination are based on the knowledge that technology exists to identify, justify, and review those variables, conditions, or other items which are determined to be probable subjects of license specifications. The technology for identifying necessary levels for restrictions and controls to protect public radiological health and safety is considered to be available because of the past and current experience in similar nuclear operations. Therefore, based on identification of and justification for the required license specifications, the type of review will be limited to a Safety Review.

REVIEW STRATEGY:

Acceptance Review:

In conducting the Acceptance Review of the requirement regarding the identification and justification of license specifications to receive and possess high-level radioactive waste and spent nuclear fuel at a geologic repository, the reviewer should determine if the information presented in the license application and its references for determining compliance with the applicable regulatory requirements is complete in technical breadth and depth as identified in Section 2.6 of regulatory guide "Format and Content for the License Application for the High-Level Waste Repository (FCRG)." The reviewer should determine whether all appropriate information necessary for the staff to review DOE's recommendations regarding license specifications is presented such that the assessments required by the regulatory requirements can be performed.

The reviewer should determine that the information presented in the license application is presented in such a manner that the assumptions, data, and logic leading to the identification of license specifications are clear and do not require the reviewer to conduct extensive analyses or literature searches. The reviewer should also determine whether controversial information and appropriate alternative interpretations have been adequately described and considered. Those sections of the license application which support the review described in this plan are listed in Table 2.6-1.

Finally, the reviewer should determine if the U.S. Department of Energy (DOE) has either resolved all the NRC staff objections that apply to this requirement or provided all the information requested in Section 1.6.2 of the FCRG regarding unresolved objections. The reviewer should evaluate the effects of any unresolved objections, both individually and in combination with others, on: (1) the reviewer's ability to conduct a meaningful and timely review; and (2) the Commission's ability to make a decision regarding construction authorization within the three-year statutory period.

Safety Review:

The purpose of this section of the license application is to identify those variables, conditions, or other items which are determined to be probable subjects of license specifications, and to justify their selection. This information should be derived from the assessments presented and the conclusions reached by DOE in other sections of the license application. The specific aspects of the license application on which the reviewer will focus are described below, and the Acceptance Criteria are identified in Section 3.0 of this review plan.

In conducting the Safety Review, the reviewer will, at a minimum, determine the adequacy of the data and analyses presented in the license application to support DOE's recommendations regarding license specifications. Specifically, DOE will need to provide information to demonstrate the basis for selecting the features, characteristics, and conditions governing the operation of the geologic repository which may be subject to NRC licensing specifications. These should be consistent with the six categories described in 10 CFR 60.43(b). As specified in 10 CFR 60.43(a), the review should determine that the license specifications recommended by DOE and stipulated under 10 CFR 60.43(b) are derived from analyses and evaluations included in the license application. Any additional conditions may be determined by the Commission to be appropriate as a result of the Compliance Reviews of other sections of the license application, but their identification as license specifications may be deferred until those reviews are

complete. (Those sections of the license application which will support these Compliance Reviews are listed in Table 2.6-1.)

The information contained in Section 2.6 of the license application, regarding the need for license specifications, will be compared against the assumptions and conclusions reached by the Compliance Reviews of those license applications sections listed in Table 2.6-1. If it is determined that the conclusions reached by the Compliance Reviews of those sections listed in Table 2.6-1 is inadequate to support the Safety Review called for in this section of the license application, then additional clarification will be requested from DOE.[1]

Finally, in order to conduct an effective review, the reviewer will rely on staff expertise and independently acquired knowledge, information, and data such as the results of research activities being conducted by the NRC's Office of Nuclear Regulatory Research, in addition to that provided by DOE in its license application.

RATIONALE FOR REVIEW STRATEGY:

Not applicable.

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APPLICABLE REGULATORY REQUIREMENTS FOR EACH TYPE OF REVIEW:

Type 1:
10 CFR 60.21(c)(6)
10 CFR 60.43(a)
10 CFR 60.43(b)

Type 3:
10 CFR 60.43(a)
10 CFR 60.43(b)

REFERENCES:

Code of Federal Regulations, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," Part 60, Chapter I, Title 10, "Energy."

[1] It should be noted that assessments from the performance confirmation program may identify deviations from the original design baseline. Analysis of the implications of any changes from the original design and/or anticipated performance will be treated in Section 8.5 ("Analysis of Changes from the Performance Confirmation Baseline") of the license application and its attendant review plan, and the recommendations for modification to existing license specifications discussed there.

Nuclear Regulatory Commission, "Format and Content for the License Application for the High-Level Waste Repository." Office of Nuclear Regulatory Research. [Refer to the "Products List" for the Division of High-Level Waste Management to identify the most current edition of the FCRG in effect.]

TABLE 2.6-1: Sections of the License Application Which Support the Safety Review of the "License Specification" Section of the License Application.

License Application Section	*Section Title*
Design Criteria	
4.2	Assessment of Compliance with Design Criteria for Surface Facilities
4.3	Assessment of Compliance with Design Criteria for Shafts and Ramps
4.4	Assessment of Compliance with Design Criteria for the Underground Facility
5.2	Assessment of Compliance with the Design Criteria for the Waste Package and its Components
5.3	Assessment of Compliance with the Design Criteria for the Post-Closure Features of the Underground Facility
5.5	Radiation Protection for Engineered Barrier Systems
Performance Objectives	
3.3	Assessment of Compliance with the Groundwater Travel Time Performance Objective
4.5	Assessment of Integrated GROA Compliance with the Performance Objectives: 4.5.1 Protection against Radiation Exposures and Releases of Radioactive Material to Unrestricted Areas 4.5.2 Retrievability of Waste
5.4	Assessment of Compliance with the Engineered Barrier System Performance Objectives
6.1	Assessment of Compliance with the Requirement for Cumulative Releases of Radioactive Materials
6.2	Assessment of Compliance with the Individual Protection Requirements
6.3	Assessment of Compliance with the Groundwater Protection Requirements
8.4	Radiation Protection during Performance Confirmation
Siting Criteria	
8.5	Analysis of Changes from Performance Confirmation Baseline
Other	
1.5	Physical Security Plan
2.5	Radioactive Material
7.1	Plans for Conduct of Normal Activities
7.3	Organizational Structure, Management, and Administrative Controls
7.8	Identification of Operating Controls and Limits
9.0	Land Ownership and Control