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COMPLIANCE DETERMINATION METHOD FOR REVIEW PLAN NO. 1.0 GENERAL INFORMATION

3.0 REVIEW PROCEDURES AND ACCEPTANCE CRITERIA

3.1 Acceptance Review

In conducting the Acceptance Review for docketing, the staff will compare the information in the License Application (LA) concerning general information with the corresponding section of the FCRG and with the staff's resolution status of objections to the LA submittal in the Open Item Tracking System (OITS) and determine if this information meets the following criteria.

(1) The information presented in the LA is clear, completely documented consistent with the level of detail presented in the corresponding section of the FCRG, and the references have been provided.

(2) DOE has either resolved, at staff level, NRC objections to the LA submittal that apply to this regulatory requirement topic, or provided all information requested in Section 1.6 of the FCRG for unresolved objections, namely, DOE has:

- Identified all unresolved objections
- Explained the differences between NRC and DOE positions which precluded resolution of each objection
- Described all attempts to achieve resolution
- Explained why resolution has not been achieved
- Described the effects of the different positions on demonstrating compliance with 10 CFR Part 60

In addition, unresolved objections, individually or in combination with others, will not prevent either the reviewer from conducting a meaningful Compliance Review or the Commission from making a decision regarding construction authorization within the 3-year statutory period.

3.2 Compliance Reviews

Compliance determinations undertaken by NRC staff will consider whether Acceptance Criteria specified for each of the following Compliance Reviews have been met. Results of the compliance determinations should be documented by the staff in the Safety Evaluation Report (SER) to provide the basis for actual Evaluation Findings.

3.2.1 General Information Review of 10 CFR 60.21(b)(1)

The staff will review the license application to determine if the general description of the proposed geologic repository includes the following items (which constitute acceptance criteria):

- (1) A general description of both the site and the geologic setting;
- (2) A general description and scaled drawings showing the location of the geologic repository operations area (GROA) and all structures, engineered barriers, roads, and transportation links on the site along with boundaries, both natural and man-made;
- (3) A general discussion of outstanding demographic, geomorphic, and climatologic features of the site and vicinity;
- (4) The purpose of each facility;
- (5) The interrelationships of the facilities;
- (6) The relationship of the facility to the site features;
- (7) General design features of major above- and below-ground structures, with a designation of whether they are permanent or temporary;
- (8) A general description of the proposed operations, including receipt, handling, emplacement, retrieval and testing, movement of personnel, materials, and equipment during construction and operations;
- (9) A brief discussion of plans for decommissioning and permanent closure of the site;
- (10) References to all appropriate provisions of the statutory authority to perform the various activities for and at the repository;
- (11) Identification of major proposed activities, along with the specific basis and statutory authority for each;
- (12) Identification of specific regulatory citations that pertain to the conduct of proposed activities, to verify correct and complete documentation of authority; and
- (13) Identification of any clearly applicable provisions of law not presented in the application and all applicable sections of NRC's regulations that apply to proposed activities.

3.2.2 General Information Review of 10 CFR 60.21(b)(2)

The staff will determine whether the general information of the license application concerning schedules meets the following acceptance criteria:

- (1) Broad schedules for all phases of geologic repository construction, receipt of waste, emplacement, permanent closure, and decommissioning are provided.

- (2) The broad overall schedules are consistent with the more detailed schedules presented in Section 7.7 of the license application.
- (3) The proposed overall schedules are based on the information available about future segments of the program that must occur in relation to other activities.
- (4) Schedules that have been projected use realistic assumptions and take into account the integrated nature of the various operational components.
- (5) Individual schedules for various phases of preparation activities, surface and subsurface construction (including intermediate inspections and approvals), and operational and post-operational phases have been factored into these broad overall schedules. The reviewer should be able to ascertain whether the broad schedules identify both how major program components will progress sequentially through different phases of activity at the geologic repository and whether the major activities that are in progress simultaneously have been coordinated.

3.2.3 General Information Review of 10 CFR 60.21(b)(3)

The staff will review DOE's certification of safeguards to determine whether the license application meets the following acceptance criteria:

- (1) DOE has identified the facilities that it considers to be comparable and the principal elements of those security and safeguards measures that are used to provide for common defense and security. For each of those elements, DOE has certified that it will provide equivalent measures or, alternatively, it should explain any deviations in a manner that demonstrates adequate promotion of common defense and security. Deviations may reflect differences in the sensitivity of materials at the GROA to theft and diversion concerns.
- (2) Any classified information concerning DOE's plans will be separated from unclassified information, as provided in 10 CFR 60.21(a).

3.2.4 General Information Review of 10 CFR 60.21(b)(4)

The staff will review the description of the physical security plan to determine if the following acceptance criteria have been met.

- (1) The description includes discussion regarding those security measures, designs, procedures, and administrative actions intended to prevent radiological sabotage at the GROA.
- (2) The discussion includes the rationale underlying the selection of those features described in Item (1) above.
- (3) The discussion includes the relationship between those features of the GROA design intended to prevent radiological sabotage, and major GROA design features, including

those features of the GROA design providing for the control of radiation exposures and radiation levels, and releases of radioactive materials.

3.2.5 General Information Review of 10 CFR 60.21(b)(5)

The staff will review the description of the site characterization work conducted to determine whether the following acceptance criteria have been met.

- (1) DOE has reported on the progress of site characterization.
- (2) DOE has documented changes in its site characterization work.
- (3) The license application states that any divergences from DOE's SCP have been described in DOE's semi-annual progress reports and whether any staff objections have been resolved, at the staff level.
- (4) DOE has resolved any staff comments regarding inaccuracy of reporting changes in its site characterization work as described in the Site Characterization Plan.

3.2.6 General Information Review of 10 CFR 60.21(a)

The staff will ascertain whether the general information of the license application meets the following acceptance criteria.

- (1) DOE has provided summary discussions describing how individual repository systems [(i.e., the natural systems of the geologic setting, the geologic repository operations area, and the engineered barrier system (EBS))] meet the performance objectives described in 10 CFR 60.111 and 60.113 and has discussed these items in detail in specific sections of Chapters 3.0 - 5.0 of DOE's license application.
- (2) DOE has summarized the results of its overall system performance assessment conducted in accordance with 10 CFR 60.112 and described them in detail in Chapter 6.0 of the license application.
- (3) DOE has provided summary discussions of its demonstrations of compliance with: (1) the radiation protection and waste retrieval performance objectives of 10 CFR 60.111; (2) the waste package containment and EBS release rate performance objectives of 10 CFR 60.113(a)(1)(ii)(A) and 10 CFR 60.113(a)(1)(ii)(B); and (3) the performance objectives related to pre-waste emplacement groundwater travel time in 10 CFR 60.113(a)(2).
- (4) These discussions address the uncertainties present in the compliance demonstrations, and the extent to which the favorable conditions and potentially adverse conditions of 10 CFR 60.122(b-c) have been incorporated, as necessary, into the demonstrations.
- (5) DOE has presented the results of compliance demonstrations with the "...generally applicable environmental standards for radioactivity" promulgated by the U.S. Environmental Protection Agency (i.e., 40 CFR Part 191 (*Code of Federal Regulations*,

Title 40, "Protection of the Environment"), as referenced in 10 CFR 60.112, related to the containment of high-level radioactive waste, individual protection, and groundwater protection (or such standards as currently exist).

- (6) The results have been summarized for anticipated processes and events and unanticipated processes and events, as necessary, and that the extent to which the favorable conditions and potentially adverse conditions of 10 CFR 60.122(b-c) have been incorporated is addressed.
- (7) Discussion of the uncertainties, qualitative and quantitative, present in the analyses have been provided, and the data and parameters to which the results are most sensitive have been presented.

3.3 Rationale For Review Procedures and Acceptance Criteria

3.3.1 Rationale for General Information Review of 10 CFR 60.21

The acceptance criteria for this General Information Review are appropriate because these comprise the minimum information necessary to satisfy the applicable regulatory requirements.

4.0 IMPLEMENTATION

4.1 Review Responsibilities

The review responsibilities for this review plan are as follows:

<i>Lead:</i>	HLUR-HLW & QA
<i>Support:</i>	None

4.2 Interfaces

4.2.1 Input Information

None

4.2.2 Output Information

None

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5.0 EXAMPLE EVALUATION FINDINGS

The staff should consider the Example Evaluation Findings presented below together with the Acceptance Criteria set forth in Section 3.0 when making the actual Evaluation Findings resulting from the Acceptance Review for docketing and the Compliance Reviews. The actual Evaluation Findings resulting from the Compliance Reviews, and the supporting basis for these findings, should be documented by the staff in the SER.

5.1 Finding for Acceptance Review

The NRC staff finds the information presented by DOE is (is not) acceptable for docketing and compliance review.

5.2 Findings for Compliance Reviews

5.2.1 Finding for 10 CFR 60.21(a) and (b)(1-5)

The NRC staff finds that the general information presented by DOE is (is not) sufficient to satisfy the requirements of 10 CFR 60.21(a) and (b)(1-5).

6.0 REFERENCES

None

**COMPLIANCE DETERMINATION STRATEGY
RRT 1.0 - GENERAL INFORMATION**

1.0 APPLICABLE REGULATORY REQUIREMENTS

10 CFR 60.21(a)
10 CFR 60.21(b)(1-5)

TYPES OF REVIEW

Acceptance Review (Type 1)
General Information Review (Type 2)

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(a) and 60.21(b)(1-5) 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.

General Information Review (Type 2) Rationale

This regulatory requirement topic is related to the general information required in 10 CFR 60.21(a) and 10 CFR 60.21(b)(1-5). 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). Therefore, the staff will conduct a General Information Review of the license application to determine compliance with the applicable regulatory requirements.

2.0 REVIEW STRATEGY

2.1 Acceptance Review

To determine whether this section of DOE's license application is acceptable for docketing, the staff will determine whether the information submitted is consistent with that identified in the corresponding section of the Regulatory Guide "Format and Content for the License Application for the High-Level Waste Repository" (FCRG).

Before the receipt of the license application, the staff will have conducted pre-licensing reviews of DOE's program, including technical reviews and quality assurance reviews and audits. The staff will have documented its concerns, resulting from these pre-license application reviews, as open items. Some of these open items, referred to as objections to license application submittal, may be critical to the staff's license application review, because lack of acceptable DOE resolution would prevent NRC from conducting a meaningful review. Therefore, as part of its Acceptance Review for docketing, the staff will evaluate how significant any unresolved objection to license application submittal is, to the effective conduct of licensing activities, using the criteria given in Section 3.1 of this review plan.

The information in the license application should be clear and should not require the reviewer to conduct extensive searches for information contained in referenced chapters elsewhere in the license application.

2.2 Compliance Review

2.2.1 General Information Review

The subject of this review plan is limited to consideration of the general information of the license application. The material to be reviewed is mostly informational in nature, and does not require a detailed technical analysis. The level of detail should be similar to that of an "Executive Summary." The reviewer will focus on the specific aspects of the license application discussed below, and the Acceptance Criteria are identified in Section 3.0 of this review plan.

In conducting the General Information Review, the reviewer should determine if the information in the license application is an acceptable demonstration of compliance with the applicable regulatory requirements. The review will, at a minimum, assess the adequacy of the descriptions presented in the license application, to determine compliance with 10 CFR 60.21(a) and 60.21(b)(1). To conduct an effective review, the reviewer will rely on staff expertise and independently acquired knowledge in addition to that provided by DOE in its license application. For example, specific review activities that will be required after receipt of DOE's license application include: (1) confirmation that DOE has included the most recent information in the descriptions; and (2) confirmation that DOE's descriptions include, either in this part of the license application or by reference elsewhere in the license application, descriptions of all the topics identified in Section 1.1 of the FCRG. The reviewer should focus on additional data that can refine knowledge concerning the geologic repository. The reviewer must have acquired a body of knowledge about these and other critical considerations, in anticipation of conducting the General Information Review, to ensure that the general description of the facility in the license application is sufficient in scope and depth.

RATIONALE FOR REVIEW STRATEGY

Not Applicable

Contributing Analysts

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APPLICABLE REGULATORY REQUIREMENTS FOR EACH TYPE OF REVIEW

Type 1

- 10 CFR 60.21(a)
- 10 CFR 60.21(b)(1-5)

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Type 2

10 CFR 60.21(a)
10 CFR 60.21(b)(1-5)

6.0 REFERENCES

References for Review Strategies

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.]