

**COMPLIANCE DETERMINATION METHOD FOR REVIEW PLAN NO. 2.0
GENERAL INFORMATION FOR THE SAFETY ANALYSIS REPORT**

3.0 REVIEW PROCEDURES AND ACCEPTANCE CRITERIA

3.1 Acceptance Review

In conducting the Acceptance Review for docketing, the staff will compare General Information in the License Application (LA) with the corresponding section of the FCRG and with the resolution status of staff objections to the LA submittal in the Open Item Tracking System (OITS). The staff will then determine whether this information meets the following Acceptance 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 properly referenced.

(2) DOE has either resolved, at staff level, NRC objections to the LA submittal which apply to this regulatory requirement topic, or provided all information requested in Section 1.6 of the FCRG for unresolved objections. Namely, it should be determined whether 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 the reviewer from conducting a meaningful *Compliance Review* and 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(c)(5)

The staff will review DOE's description and specifications of radioactive material proposed to be received to determine if the following acceptance criteria have been met.

- (1) Descriptions include the physical inventory of the types, amounts, and specifications of spent fuel and high-level radioactive waste forms that might be disposed at the geologic repository.
- (2) Information is provided for non-high-level waste forms [e.g., low-level, greater-than-class-C, or transuranic waste (LLW, GTCC, and TRU, respectively)]. This is needed to confirm repository designs or conditions (including performance).

3.2.2 General Information Review of 10 CFR 60.21(c)(14) and 10 CFR 60.24(a)

The staff will review DOE's description of further technical information needed to support issuance of a license to determine if the following acceptance criteria have been met.

- (1) The LA identifies and distinguishes between those technical information development programs that will be required to determine the adequacy of a new design and those that will be used to demonstrate the margin of conservatism of a proven design, including those for contemplated future changes in design or operation.
- (2) The LA describes the specific technical information that must be obtained to demonstrate acceptable resolution of the program.
- (3) The LA describes the program in sufficient detail to show how the information will be obtained, or cross-references those sections of the LA in which these plans are provided.
- (4) The LA provides a schedule of the completion of the program as related to the projected start-up date of repository operations.
- (5) The LA discusses the design alternatives or operational restrictions available in the event that the results of the program do not demonstrate acceptable resolution of remaining technical issues.

3.2.3 General Information Review of 10 CFR 60.21(c)(15)(i)

The staff will review DOE's discussion of their organization, contractors and agents to determine if the following acceptance criteria have been met.

- (1) A description of DOE's organizational structure, responsibilities and authorities as related to the proposed repository site investigations, design, construction, and operation.
- (2) A presentation of the major contractors, subcontractors, and affected organizations has been included, as well as a delineation of the technical work areas and delegation of authority assigned to these parties together with the address of the office of record for each such entity.
- (3) DOE has included principal consultants and outside service organizations in the presentation.
- (4) The listing of agents and contractors is consistent with the detailed presentation included in Section 7.3 ("Organizational Structure, Management, and Administrative Controls") of the license application.

3.2.4 General Information Review of 10 CFR 60.23

The staff will review DOE's discussion of material incorporated by reference to determine if the following acceptance criteria have been met.

- (1) DOE has reported the topical and issue-resolution reports of results of tests and analyses in a listing in this section, based on material incorporated by reference in other sections of the license application.
- (2) DOE has documented the necessary information to enable clear identification of each incorporated report in the list, including but not limited to, title, report number, date submitted to NRC, and section(s) of the LA in which the item is referenced.
- (3) DOE has identified any topical or issue-resolution reports or the results of any tests and analyses which are proposed to be withheld from public disclosure under NRC regulations (10 CFR §2.790(b)) as proprietary documentation, and a determination of whether a nonproprietary summary of the general content of the material has been prepared and is referenced in the list.

3.2.5 General Information Review of 10 CFR 60.24(a) and 10 CFR 60.21(a)

The staff will review DOE's discussion of the use of NRC Technical Positions to determine if the following acceptance criteria have been met.

- (1) DOE has provided a table indicating the extent to which it has used applicable NRC Technical Positions, and the title, number, and revision of those positions.
- (2) The table identifies those sections of the LA to which the technical position applies and indicates any proposed exceptions to the technical position.

3.2.6 Safety Review of 10 CFR 60.21(c)(6)

The staff will review DOE's description of license specifications to determine if the following acceptance criteria have been met.

- (1) DOE has provided information to demonstrate the basis for selecting the features, characteristics, and conditions, governing the operation of the geologic repository, that may be subject to NRC licensing specifications.
- (2) The license specifications are consistent with the six categories described in 10 CFR 60.43(b).
- (3) 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.

3.2.7 Safety Review of 10 CFR 60.21(c)(10)

The staff will review DOE's description of nuclear material control to determine if the following acceptance criteria have been met.

- (1) The recordkeeping shows the receipt, inventory (including location), disposal, acquisition, and transfer of all HLW that is to be stored or emplaced.
- (2) The nuclear material controls include records of the shipper, the estimated quantity of radioactive material per item, item identification and seal numbers, storage location(s), emplacement location, and removal from the site, if necessary.
- (3) Plans include procedures for and verification of periodic physical inventory of the HLW on site.
- (4) Written material control and accounting procedures are planned that are sufficiently detailed to enable DOE to account for specific HLW onsite and to ensure that unauthorized changes in the records will not occur.
- (5) Records associated with material control will be kept in duplicate and in sufficiently separate locations, so that a single event would not destroy both the original and duplicate sets of records;
- (6) Plans include retention of records associated with material control and inventory after license termination.

3.3 Rationale For Review Procedures and Acceptance Criteria

3.3.1 Rationale for General Information Review of 10 CFR 60.21(a), 10 CFR 60.23, and 10 CFR 60.24(a)

The review procedures and acceptance criteria for these General Information Reviews are appropriate because these comprise the minimum information necessary to satisfy the applicable regulatory requirements, as identified in the FCRG.

3.3.2 Rationale for Safety Review of 10 CFR 60.21(c)(6)

The acceptance criteria for this Safety Review are appropriate because this is the minimum information necessary to determine if the DOE's licensing specifications are consistent with the licensing specification categories identified in 10 CFR 60.43(b). While these specifications will appear in the license as prepared by NRC, the DOE must, in the LA, identify those conditions upon which the design and performance of the proposed repository depend.

3.3.3 Rationale for Safety Review of 10 CFR 60.21(c)(10)

The acceptance criteria identified in this review are consistent with those applied to nuclear power plants and nuclear fuel production facilities.

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>	ENGB-ENG, FCSS

4.2 Interfaces

4.2.1 Input Information

None

4.2.2 Output Information

None

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 (c)(5), (c)(14), (c)(15)(i), and 60.23, and 60.24(a)

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 (c)(5), (c)(14), (c)(15)(i), and 60.23, and 60.24(a).

5.2.2 Finding for 10 CFR 60.21(c)(6)

The NRC staff finds that the applicant has (has not) demonstrated that the proposed license specifications are complete, comprehensive and appropriate.

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5.2.3 Finding for 10 CFR 60.21(c)(10)

The NRC staff finds that the applicant has (has not) demonstrated that the proposed plans and procedures for inventory control and material accountability are complete, comprehensive, and appropriate.

6.0 REFERENCES

None

**COMPLIANCE DETERMINATION STRATEGY
RRT 2.0 - GENERAL INFORMATION FOR THE SAFETY ANALYSIS REPORT**

1.0 APPLICABLE REGULATORY REQUIREMENTS

- 10 CFR 60.21(a)
- 10 CFR 60.21(c)(5)
- 10 CFR 60.21(c)(6)
- 10 CFR 60.21(c)(10)
- 10 CFR 60.21(c)(14)
- 10 CFR 60.21(c)(15)(i)
- 10 CFR 60.23
- 10 CFR 60.24(a)

TYPES OF REVIEW

- Acceptance Review (Type 1)
- General Information Review (Type 2)
- 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(a), 60.21(c), 60.23, and 60.24(a) 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 by 10 CFR 60.21(a), 60.21(c), 60.23 and 60.24(a). 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).

Safety Review (Type 3) Rationale

Portions of this regulatory requirement topic are considered to be related to radiological safety, containment, and waste isolation. These are requirements 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 B, E, G, H, and I). Therefore, the staff will conduct a Safety Review of the license application to determine compliance with these 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 sections of the FCRG.

Before the receipt of the license application, the staff will have conducted prelicensing 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.

2.2 Compliance Review

2.2.1 General Information Review

In conducting the General Information Review, the reviewer should determine if the general information in the safety analysis report of the license application and its references is an acceptable demonstration of compliance with the applicable regulatory requirements. The general information of the Safety Analysis Report should include descriptions and specifications of the radioactive material to be received, a description of the further technical information needed to support issuance of a license, a discussion of DOE's contractors and agents, discussion of material incorporated by reference, and discussion of the use of NRC Technical Positions.

Finally, the reviewer should determine if the information presented in the license application is presented in such a manner that the demonstration of compliance with the applicable regulatory requirements (or the FCRG) is clear. The reviewer should also determine that contradictory information and appropriate alternative interpretations and models have been adequately described and considered.

2.2.2 Safety Review

These regulatory requirements are limited to the consideration of licensing specifications and nuclear material control.

In conducting the Safety Review, the reviewer should determine if the information presented in the license application and its references is an acceptable demonstration of compliance with the applicable regulatory requirements. At a minimum, the reviewer shall assess the adequacy of the descriptions presented in the license application, to determine compliance with 10 CFR 60.21(c)(6) and 60.21(c)(10). Specifically, DOE will need to identify and justify the variables, conditions, and other items determined to be probable subjects of license specifications and to describe their nuclear material control and accounting program. The specific aspects of the license application on which the reviewer will focus are discussed below, and the Acceptance Criteria are identified in Section 3.0 of this review plan.

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In order to conduct an effective review, the reviewer will rely on his own expertise and independently acquired knowledge, information, and data in addition to that provided by the DOE in its license application. It is incumbent upon the reviewer to have acquired a body of knowledge regarding these and other critical considerations in anticipation of conducting the review.

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(c)(5)
- 10 CFR 60.21(c)(6)
- 10 CFR 60.21(c)(10)
- 10 CFR 60.21(c)(14)
- 10 CFR 60.21(c)(15)(i)
- 10 CFR 60.23
- 10 CFR 60.24(a)

Type 2

- 10 CFR 60.21(a)
- 10 CFR 60.21(c)(5)
- 10 CFR 60.21(c)(14)
- 10 CFR 60.21(c)(15)(i)
- 10 CFR 60.23
- 10 CFR 60.24(a)

Type 3

- 10 CFR 60.21(c)(6)
- 10 CFR 60.21(c)(10)

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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.)