

**COMPLIANCE DETERMINATION METHOD FOR REVIEW PLAN NO. 4.1.1
DESCRIPTION OF THE GROA STRUCTURES, SYSTEMS, AND COMPONENTS:
SURFACE FACILITIES**

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 GROA surface facility descriptions with the corresponding section of the FCRG and with the staff's resolution status of objections in the Open Item Tracking System and determine if this information meets the following Acceptance Criteria:

- (1) The information presented in the LA is clear, is completely documented consistent with the level of detail presented in the corresponding section of the FCRG, and the references have been provided.
- (2) The DOE has either resolved, at the staff level, the NRC objections that apply to this regulatory requirement topic or provided the information requested in Section 1.6 of the FCRG for unresolved objections. Namely, it should be determined whether the DOE has:
 - Identified the unresolved objections.
 - Explained the differences between the NRC and DOE positions that precluded resolution of each objection.
 - Described the 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.
- (3) 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

The compliance determinations undertaken by the NRC staff will consider whether the Acceptance Criteria specified for each of the following compliance reviews have been met. The results of the compliance determinations shall be documented in the staff's Safety Evaluation Report (SER) to provide the basis for the actual evaluation findings.

3.2.1 Safety Review of 10 CFR 60.21(c) (as applicable)

The staff's Compliance Review will consist of the following two steps. First, the staff will review the

descriptive information provided for GROA surface facilities. This will provide an overall understanding of how DOE has presented its information on the many individual aspects of the GROA surface facility design and how this information has been integrated.

Second, after the staff has conducted each of the Compliance Reviews for those sections of the license application identified in Section 4.2 of this review plan, the individual Evaluation Findings from those reviews will be considered on balance to determine whether the following Acceptance Criterion has been met:

- The descriptive information for the GROA surface facility design provides an acceptable basis for the associated compliance assessment of the surface facilities that relies on this information.

3.3 Rationale for Review Procedures and Acceptance Criteria

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

The information presented in the description of the surface facilities must be reviewed in the context of whether it supports the findings that must be made in those design assessment review plans which make use of the descriptive information. Therefore, the review procedure requires the reviewer to examine the evaluation findings from those review plans prior to making a conclusion as to the adequacy of the descriptive material.

4.0 IMPLEMENTATION

4.1 Review Responsibilities

The review responsibilities for this review plan are identified in the following table.

| | |
|----------|---|
| Lead: | NMSS-DWM-ENGB-GES |
| Support: | NMSS-DWM-ENGB-GEO NMSS-DWM-ENGB-EMS NMSS-DWM-PAHB-PAHP NMSS-DWM-PAHB-HTS |

4.2 Interfaces

4.2.1 Input Information

Information¹ needed from other License Application that will provide input important to this Review Plan is listed in the following table.

¹ The degree of applicability of input/output information cited below will depend upon how the DOE organizes the information in its license application and how it cross-references this information.

| Input Information | From License Application Section |
|---|--|
| Geotechnical information on the subsurface and environmental conditions such as design basis events, stratigraphy and physical and strength parameters, and design parameters for the materials at the surface facilities - required for the description of GROA Surface Facilities | 3.1.X Description of Individual Systems and Characteristics of Site |
| List/identification of Structures Systems and Components (SSCs) of surface facilities that are important to radiological safety and retrievability | 4.2 Assessment of Compliance with Design Criteria for Surface Facilities |

4.2.2 Output Information

Information¹ from this section of the License Application that will be important to other Review Plans is listed in the following table.

| Output Information | To Review Plan Nos. |
|--|--|
| Identification and description of structures systems and components at the interface between surface facilities and shafts and ramps. | 4.1.5 Description of GROA Structures, Systems, and Components: Interfaces between Structures, Systems, and Components |
| Description of all Structures, Systems, and Components identified in Table 4.1.1-1 of this review plan. The scope of the description, as a minimum, should include Items 1 through 9 listed in Section 2.2.1 of this review plan. | 4.2 Assessment of Compliance with Design Criteria for Surface Facilities |
| <p>The description of the surface facilities should include design information on the Structures, Systems, and Components intended for radiation protection.</p> <p>The description of surface facilities should include information on the plans and provisions in the design to address how the retrievability requirement of the regulation is complied with?</p> | <p>4.5 Assessment of Integrated GROA Compliance with Performance Objectives:</p> <p>4.5.1 Protection against Radiation Exposure and Releases of Radioactive Materials to Unrestricted Areas</p> <p>4.5.2 Retrievability of Waste</p> |

| Output Information | To Review Plan Nos. |
|---|--|
| General description and functions of surface facilities to enable identifying the SSCs that require research and development to confirm the adequacy of the design. | 8.5 Unresolved Safety Questions |
| Information on general description and functions of surface facilities that is required for developing plans for conduct of normal activities at the GROA surface facilities. | 7.1 Plans for Conduct of Normal Activities |

5.0 EXAMPLE EVALUATION FINDINGS

The staff should consider the Example Evaluation Findings given below when making the final actual Evaluation Findings resulting from the Acceptance Review, for docketing, and the subsequent Compliance Review. The actual Evaluation Findings resulting from the Compliance Review, and the supporting basis, should be documented in the staff's SER.

5.1 Finding for Acceptance Review

The NRC staff finds that the information presented by DOE, as defined by the Applicable 10 CFR Part 60 Regulatory Requirements, is acceptable (not acceptable) for docketing and a subsequent Compliance review.

5.2 Findings for Compliance Reviews

The NRC staff finds the information for descriptions, assessments, and analyses is (is not) adequate, and there is (is not) reasonable assurance the applicable regulatory requirements of 10 CFR 60.21(c), listed in Section 1.0 of this Review Plan, will be met for the GROA surface facilities.

6.0 REFERENCES

Nuclear Regulatory Commission. 1990. *Format and Contents for the License Application for the High-Level Waste Repository*. Draft Regulatory Guide DG-3003. Washington, DC: Nuclear Regulatory Commission.

Table 4.1.1-1 A Minimum Set of Structures, Systems, and Components for Geologic Repository Operations Area System Facilities.

1. Hot cells
2. On-Site radioactive waste management systems
3. Ventilation systems (intake and exhaust)
4. Fire suppression and explosion protection systems
5. Utility systems
6. Emergency systems
7. Communication systems
8. Operational support systems
9. Decommissioning and decontamination systems
10. Instrumentation and control systems (including radiation)
11. On-Site transportation systems (personnel and material)
12. Waste handling systems
13. Electrical support systems
14. Excavation and ground support systems
15. Waste retrieval systems