

COMPLIANCE DETERMINATION STRATEGY

RRT 1.5 PHYSICAL SECURITY PLAN

APPLICABLE REGULATORY REQUIREMENTS:

10 CFR 60.21(b)(4)
10 CFR 60.31(a)

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(b) and Section 1.5 of regulatory guide "Format and Content for the License Application for the High-Level 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 general information required by 10 CFR 60.21(b). The general information provided about the physical security plan will assist in the reviews related to the geologic repository operations area (GROA) design for safety against radiological sabotage. It is a regulatory requirement topic for which compliance is necessary to make a 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.

There appears to be no lack of certitude as to the methodology needed to determine or demonstrate compliance with the preclosure regulatory requirements for submitting a physical security plan. Factors considered in making this determination are based on the knowledge that technology and experience at similar nuclear materials facilities exist to physically protect nuclear materials against radiological sabotage until permanent closure. The technology for physical security is considered to be available because of past experience in similar nuclear operations.

REVIEW STRATEGY:

Acceptance Review:

In conducting the Acceptance Review of the U.S. Department of Energy's (DOE's) physical security plan for the geologic repository operations area (GROA), the reviewer should determine if the information presented in the license application for demonstrating compliance with the applicable regulatory

requirements is complete in technical breadth and depth as identified in Section 1.5 of the regulatory guide "Format and Content for the License Application for the High-Level Repository (FCRG)." The reviewer should determine that all appropriate information necessary for the staff to review the physical security plan is presented such that the assessments required by the applicable regulatory requirements can be performed.

The reviewer should determine whether the information in the license application is presented in such a manner that the assumptions, data, and logic leading to a demonstration of compliance with the applicable regulatory requirements are clear. The reviewer should also determine whether controversial information and appropriate alternative interpretations and models have been adequately described and considered.

Finally, the reviewer shall determine if DOE has either resolved all NRC staff objections related to the applicable regulatory requirements or provided all the information requested in Section 1.6.2 of the FCRG, for the resolution of unresolved objections. The reviewer should evaluate the effects of any unresolved objections, both individually and in combinations 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 statutory three-year period.

General Information Review:

This regulatory requirement topic is limited to consideration of those physical security measures to be employed at the GROA to protect public health and safety. The scope of physical security, for the purpose of 10 CFR Part 60, is concerned primarily with radiological sabotage, as defined in 10 CFR 73.2 to be those "deliberate acts ... which could directly or indirectly endanger the public health and safety by exposure to radiation." It is not concerned with the related subjects of safeguards certifications or nuclear material accounting. These topics will be addressed in Sections 1.4 ("Certification of Safeguards") and 2.7 ("Nuclear Material Control"), respectively, in the license application and attendant review plans.

In conducting the General Information 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 should assess the adequacy of the analyses and plans presented in the license application to determine compliance with 10 CFR 60.21(b)(4). The specific aspects of the license application on which a reviewer will focus are discussed below, and the Acceptance Criteria are identified in Section 3.0 of this review plan.

The information in the physical security plan should set out the features of DOE's GROA design that are intended to prevent radiological sabotage. Any classified information should be separated from unclassified information. The staff, accordingly, should include the following matters in its review:

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

- (4) any details given in Section 1.5 of the FCRG.

In order to conduct an effective review, the reviewer will rely on staff expertise and independently acquired knowledge, information, and data, in addition to that provided by DOE in its license application. For example, the reviewer should have knowledge and experience in the area of physical security for nuclear facilities. The reviewer should be able to identify those variables that may significantly influence the final design and the structures, systems, and components used for physical protection against radiological sabotage. 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 to assure that DOE's physical security plan is sufficient in scope and depth to provide the information to resolve these concerns. The provisions of 10 CFR Part 73 (*Code of Federal Regulations*, Title 10, "Energy") that apply to an independent spent fuel storage facility and a monitored retrievable storage installation will be used as criteria for review.

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APPLICABLE REGULATORY REQUIREMENTS FOR EACH TYPE OF REVIEW:

Type 1:

10 CFR 60.21(b)(4)
10 CFR 60.31(a)

Type 2:

10 CFR 60.31(a)

REFERENCES:

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 in effect.]

Code of Federal Regulations, "Physical Protection of Plants and Materials," Part 73, Chapter I, Title 10. "Energy."