



PHYSICAL PROTECTION AND MATERIAL CONTROL & ACCOUNTING PROGRAM IN THE YUCCA MOUNTAIN REVIEW PLAN

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INTRODUCTION TO YMRP

**NRC Regulatory Process Typically Employs Standard Review Plans
(e.g., Reactors, Uranium Recovery Facilities, ISFSIs)**

- **Standard Review Plans Have Several Functions**
 - **Ensure review consistency**
 - **Document staff review criteria**
 - **Ensure all regulatory requirements are addressed**
 - **Identify acceptable compliance demonstration methods**
 - **Assign staff responsibilities**
- **Standard Review Plans Have Consistent Content Requirements**
 - **Areas of review**
 - **Review methods**
 - **Acceptance Criteria**
 - **Evaluation finds**
 - **References**

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INTRODUCTION TO YMRP

Review Plan Regulatory Scope and Structure Are Based on 10 CFR Part 63

- **10 CFR 63.21 (Content of License Application) Defines the Format and Content of the YMRP**
- **63.21(b)(3) defines the Physical Protection regulatory requirements**
- **63.21(b)(4) defines the Material Control and Accounting Program regulatory requirements**

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ACCEPTANCE REVIEW

Acceptance Review

- **Determines Whether Application can be Docketed**
- **Does not Presuppose What the Licensing Decision Will be**
- **Does not Evaluate the Technical Adequacy of Information**
- **Use Acceptance Review "Checklist" Based on Each Requirement of 10 CFR 63.21 (Appendix B to YMRP)**
 - **Accept for review**
 - **Accept, but request for additional information prepared**
 - **Reject, inadequate to support detailed review**

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DETAILED REVIEW

Detailed Technical Review

- If License Application Passes the Acceptance Review, It Is Docketed and the Detailed Technical Review Begins
- Determine Whether Submitted Information Is Accurate and Demonstrates That Regulatory Requirements are met
- Prepare Requests for Additional Information, If Necessary
- Complete Preparation of Safety Evaluation Report
- Prepare Evaluation Findings Using Examples in YMRP

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REVIEW OF GENERAL INFORMATION

- Required by 10 CFR 63.21(b)
- Allows DOE to Present an Overview of Its Engineering Design
- Provides a Basic Understanding of Aspects of the Site and Environs that Influence Health and Safety
- Includes the Physical Protection Plan and MC&A Program

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REVIEW OF GENERAL INFORMATION

YMRP Section 1.3—Physical Protection Plan

- Requires Detailed Technical Review
- Will Incorporate any Results From Ongoing Commission Reevaluation of Physical Protection Requirements
- GROA Description and Physical Protection Plan Implementation Schedule
- Compliance With General Performance Objectives
 - HLW activities will not present unreasonable risk to public health and safety
 - Requirements of 10 CFR 73.51 will be met
 - Adequate redundancy and diversity will be provided
 - Maintenance will ensure effectiveness, reliability, and availability
- The Protection Goal Will be Met
 - Satisfy emergency dose limits of 10 CFR 72.108
 - Update physical protection plan as needed

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REVIEW OF GENERAL INFORMATION

YMRP Section 1.3—Physical Protection Plan (continued)

- Security Organization
- Physical Barriers
- Access Control Subsystems and Procedures
- Detection, Surveillance, and Alarm Subsystems and Procedures
- Communication Subsystems
- Equipment Operability and Compensatory Measures
- Contingency and Response Plans

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REVIEW OF GENERAL INFORMATION

Section 1.4—Material Control and Accounting Program

- Requires Detailed Technical Review
- Description of Design Basis Information
- Assessment of Potential Impact of Material Control and Accounting Program on Design Features
- Physical Aspects of Material Control and Accounting Program
- Material Balance, Inventory, and Record-Keeping Procedures
- Procedures for submitting Reports of Accidental Criticality or Loss of Special Nuclear Material
- Procedures for Preparation of Nuclear Material Transfer Reports

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FINDINGS TO MAKE

- A Determination of Compliance (Evaluation Finding) Must be Made for Each applicable Regulatory Requirement
- Each YMRP Section Has Sample Statements of Evaluation Findings that Are consistent with 10 CFR Part 63 Requirements
- Evaluation Findings Are Inserted at the End of Each Safety Evaluation Report Section
- To Complete the Safety Evaluation Report, an Overall Determination of Compliance With Part 63 Must be Made by the Staff

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