

INTERIM
FORMAT AND CONTENT GUIDE AND
STANDARD REVIEW PLAN
FOR U.S. DEPARTMENT OF ENERGY LOW-LEVEL WASTE
DISPOSAL FACILITY PERFORMANCE ASSESSMENTS



October 31, 1996

CONTENTS

PART A: [INTRODUCTION](#)

A.1 PURPOSE

A.2 ORGANIZATION OF DOCUMENT

A.3 BACKGROUND

A.4 PERFORMANCE MEASURES

A.5 RESPONSIBILITIES FOR PREPARATION AND REVIEW OF ASSESSMENTS

A.6 IMPLEMENTATION

PART B: [STANDARD FORMAT AND CONTENT](#)

B.1 EXECUTIVE SUMMARY

B.2 INTRODUCTION

 B.2.1 General Approach

 B.2.2 General Facility Description

 B.2.3 Schedules

 B.2.4 Related Documents

 B.2.5 Performance Criteria

 B.2.5.1 Public Protection Performance Objective

 B.2.5.3 Groundwater Protection Performance Objective

 B.2.6 Summary of Key Assessment Assumptions

- B.3 DISPOSAL FACILITY CHARACTERISTICS
 - B.3.1 Site Characteristics
 - B.3.1.1 Geography and Demography
 - B.3.1.1.1 Disposal Site Location
 - B.3.1.1.2 Disposal Site Description
 - B.3.1.1.3 Population Distribution
 - B.3.1.1.4 Uses of Adjacent Lands
 - B.3.1.2 Meteorology and Climatology
 - B.3.1.3 Ecology
 - B.3.1.4 Geology, Seismology, and Volcanology
 - B.3.1.4.1 Regional and Site-Specific Geology and Topography
 - B.3.1.4.2 Seismology
 - B.3.1.4.3 Volcanology
 - B.3.1.5 Hydrology
 - B.3.1.5.1 Surface Water
 - B.3.1.5.2 Groundwater
 - B.3.1.6 Geochemistry
 - B.3.1.7 Natural Resources
 - B.3.1.7.1 Geologic Resources
 - B.3.1.7.2 Water Resources
 - B.3.1.8 Natural Background Radiation
 - B.3.2 Principal Facility Design Facilities
 - B.3.2.1 Water Infiltration
 - B.3.2.2 Disposal Unit Cover Integrity
 - B.3.2.3 Structural Stability
 - B.3.2.4 Inadvertent Intruder Barrier
 - B.3.3 Waste Characteristics
- B.4 ANALYSIS OF PERFORMANCE
 - B.4.1 Source Terms
 - B.4.1.1 All-Pathways Analysis
 - B.4.1.2 Air Pathways Analysis
 - B.4.1.3 Groundwater Protection Analysis
 - B.4.2 Pathways and Scenarios
 - B.4.2.1 All-Pathways Analysis
 - B.4.2.2 Air Pathways Analysis
 - B.4.2.3 Groundwater Protection Analysis
 - B.4.3 Analysis Methodology
 - B.4.3.1 All-Pathways Analysis
 - B.4.3.2 Air Pathways Analysis
 - B.4.3.3 Groundwater Protection Analysis

- B.5 RESULTS OF ANALYSES
 - B.5.1 Results of All-Pathways Analysis
 - B.5.2 Results of Air Pathway Analysis
 - B.5.3 Results of Groundwater Protection Analysis
 - B.5.4 Results of Sensitivity and Uncertainty Analysis
 - B.5.5 ALARA Analysis
- B.6 INADVERTENT INTRUDER ANALYSIS
 - B.6.1 Acute Scenarios
 - B.6.2 Chronic Scenarios
 - B.6.3 Intruder Analysis Results
 - B.6.4 Intruder Sensitivity/Uncertainty Analysis
- B.7 PERFORMANCE EVALUATION
 - B.7.1 Comparison of Results to Performance Objectives
 - B.7.2 Use of Performance Assessment Results
 - B.7.3 Further Work
- B.8 QUALITY ASSURANCE
- B.9 PREPARERS
- B.10 REFERENCES
- B.11 APPENDICES
- PART C: STANDARD REVIEW PLAN**
- C.1 PURPOSE
- C.2 ASSESSMENT REVIEW PROCESS
- C.3 COMPLIANCE EVALUATION
 - C.3.1 Assessment Review
 - C.3.2 Technical Adequacy Review
 - C.3.3 Compliance Assessment
 - C.3.3.1 Compliance with All-Pathways Objective
 - C.3.3.2 Compliance with Air Pathway Objective
 - C.3.3.3 Compliance with Inadvertent Intruder Objectives
 - C.3.3.4 Compliance with Groundwater Protection Objective
- C.4 USE OF ASSESSMENT RESULTS
- C.5 CONDITIONS
- PART D: HEADQUARTERS' REVIEW DOCUMENTATION**
- D.1 COMPLIANCE EVALUATION
 - D.1.1 Summary
 - D.1.2 Performance Measures
 - D.1.3 Technical Adequacy Review
 - D.1.4 Disposal Facility Performance
 - D.1.5 Conditions for Acceptance
 - D.1.6 References
- PART E: DISPOSAL AUTHORIZATION STATEMENT**

PART F: REFERENCES

APPENDIX Revised Interim DOE Policy on Management, Direction and Oversight of Low-Level
1 Radioactive Waste Management and Disposal