Quarterly Report on Program Cost and Schedule

First Quarter FY 1991

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

MASTER

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PREFACE

This report is intended to provide a summary of the cost and schedule performance for the Civilian Radioactive Waste Management Program. Historical and current cost profiles (extracted from the DOE Financial Information System) are presented for each of the major program elements. Also included in this report are the reference program schedule, the status of near-term program milestones and the status of the Nuclear Waste Fund revenues and disbursements. This report includes data through December 1990.

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TABLE OF CONTENTS

	<u>Page</u>
1. COST AND SCHEDULE HIGHLIGHTS	1
2. NUCLEAR WASTE FUND OVERVIEW	
Receipts, Disbursements and Net Balance Projections	2
Projected versus Actual Fund Revenues	4
Cost Profile for the Total Nuclear Waste Fund	6
3. PROGRAM SCHEDULE	
Reference Schedule for the Restructured Program	8
Near-Term Decision Plan Milestone Summary	11
4. FIRST REPOSITORY	
Cost Profiles	12
5. TRANSPORTATION	
Cost Profile	17
6. MONITORED RETRIEVABLE STORAGE	
Cost Profile	20
7. SYSTEMS INTEGRATION	
Cost Profile	22
8. ENGINEERING DEVELOPMENT	
Cost Profile	24
9. PROGRAM MANAGEMENT/TECHNICAL SUPPORT	
Cost Profile	26

SECTION 1. COST AND SCHEDULE HIGHLIGHTS

- The following are selected major milestones from the Scientific Investigation Plan Rev. 0 (Near Term Decision Plan) that were reported as complete for the first quarter of FY 1991.

S-1 OCRWM DECISIONS

- Review MRS Siting Process (16 Oct 90)
- Execution of Memorandum Of Understanding Between S-1 & Negotiator (29 Nov 90)

MANAGEMENT

- All Federal Agencies Complete Review of Final Draft Project Decision Schedule (1 Oct 90)
- Issue Draft Policies and Strategic Principles (26 Nov 90)
- Start Consultations with External Parties (4 Dec 90)
- Complete All Required Qualification Audits (31 Oct 90)
- RW Letter to NRC Documenting DOE Approval of OCRWM QA Program (11 Dec 90)

YUCCA MOUNTAIN

- DOE Files Motion for Summary Judgement (04 Oct 90)
- DOE Resubmits Permit Applications to State of Nevada (1 Oct 90)
- Complete Study Plans for Major Ongoing Field Activities (30 Nov 90)

MRS

- Siting Process Status Report to S-1 (16 Oct 90)

- Actual FY91 costs for the total Nuclear Waste Fund through the first quarter were \$55.3 million. Breakdown of cost by program element is as follows:
 - Total First Repository costs - \$37.2 million (\$35.6 million for the Yucca Mountain project and the remainder for basalt and salt closeout, first repository technical support and repository technology program activities).
 - Transportation - \$2.6 million
 - MRS - \$0.1 million
 - Systems Integration - \$0.7 million
 - Engineering Development - \$4.1 million
 - Program Management/Technical Support - \$10.6 million

SECTION 2. NUCLEAR WASTE FUND OVERVIEW

RECEIPTS, DISBURSEMENTS AND NET BALANCE PROJECTIONS

Projection of Receipts and Disbursements

For FY 1983 through FY 1990, receipts were actual amounts collected from utilities while disbursements included actual disbursements and interest paid on the appropriated debt. The appropriated debt was repaid in FY85. Receipt and disbursement projections for FY 1991 through FY 1993 are based on information contained in the FY 1992 Congressional budget submission.

Projected Net Balance

The current net balance projection (February 1991) assumes the revenues from the 1 mill per kWh fee contained in the latest Energy Information Administration projection (October 1990). Revenues from the one time fee and earned interest are extracted from the FY 1992 Congressional budget submission. Disbursements for FY 1991 through FY 1993 assume the budget outlay estimates contained in the FY 1992 budget submittal.

The January 1985 and February 1986 projections are provided to show the effect of the one-time payment for fuel generated before 1983. The January 1985 projection assumed that \$770 million would be received in June 1985 for the one-time payment while the February 1986 projection reflects the fact that \$1.4 billion was actually collected.

- The February 1986 net balance projection assumed the cost estimates, revenues (both from the 1 mill per kWh fee and the one time fee), and earned interest contained in the FY 1987 budget submittal.
- The January 1985 net balance projection was based on revenue and cost projections (escalated to current dollars by an average annual growth rate of 5 percent per year) in the FY 1986 budget submitted to Congress. The projection of net balance assumed that a positive yearly balance earns interest at a rate of 7 percent per year.

PROJECTED RECEIPTS AND DISBURSEMENTS

PROJECTED NET BALANCE

PROJECTED VERSUS ACTUAL FUND REVENUES

Actual revenues from the 1 mill/kWh fee for the first quarter of FY91 were \$155.5 million. The projection of revenues for this quarter made by the Energy Information Agency in their memorandum dated October 5, 1990 was \$11.0 million less than actual revenues.

The December 1984 projection of revenues for this quarter was \$0.8 million less than actuals. Comparison of December 1984 projection of revenues from the 1 mill/kWh fee with actual collections on a quarterly basis indicates that the projections have fallen within -\$6 million to +\$45 million of actual amounts. The +\$45 million difference in the December 1984 projection versus the actual amount collected in the fourth quarter of FY86 was due to credits given to the utilities for previous overpayment as a result of the change in the fee basis from gross to net generation.

These revenue projections do not reflect the March 17, 1989 decision of the U.S. Court of Appeals concerning calculation of the 1 mill/kWh fee.

WASTE FUND REVENUES FROM 1 MILL/KWH FEE: ACTUAL VS PROJECTED

COST PROFILE FOR TOTAL NUCLEAR WASTE FUND

- FY91 actual costs through the first quarter for the Nuclear Waste Fund were \$55.3 million.
- Through the first quarter of FY91, cumulative actual costs (from FY83) for the entire program totaled \$2,751 million.

COST PROFILE FOR THE TOTAL NUCLEAR WASTE FUND

SECTION 3. PROGRAM SCHEDULE

REFERENCE SCHEDULE FOR THE RESTRUCTURED PROGRAM

- Figure 1 represents the current program schedule as contained in the Program Cost and Schedule Baseline (PCSB). This schedule is based on the Secretary's "Report to Congress on Reassessment of the Civilian Radioactive Waste Management Program" issued in November 1989. This schedule is currently being evaluated by the Program Change Control Board. Results of the evaluation will be presented in the next report.

FIGURE 1. REFERENCE SCHEDULE FOR RESTRUCTURED PROGRAM *

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NEAR-TERM DECISION PLAN

The following milestones were completed during the first quarter FY91 as reported on the Scientific Investigation Plan - Rev. 0 (Near-Term Decision Plan):

S-1 OCRWM DECISIONS

- Review MRS Siting Process (16 Oct 90)
- Execution of Memorandum Of Understanding (MOU) Between S-1 & Negotiator (29 Nov 90)

MANAGEMENT

- All Federal Agencies Complete Review of Final Draft Project Decision Schedule (1 Oct 90)
- Structural Geology and Geoengineering Panel Meeting - Technical Review Board (TRB) (11 Oct 90)
- Environment and Public Health Panel Meeting - TRB (16 Oct 90)
- Transportation and Systems Panel Meeting - TRB (22 Oct 90)
- Quality Assurance Panel Meeting - TRB (1 Nov 90)
- Technical Exchange on ESF Configuration (Late Nov 90)
- Second Nuclear Waste TRB Report Issued (Late Nov 90)
- Brief S-1 on Contractor Plan (29 Dec 90)
- Issue Draft Policies and Strategic Principles (26 Nov 90)
- RW-1 Submits MOU with Negotiator to S-1 for Approval (26 Nov 90)
- Start Consultations with External Parties (4 Dec 90)
- Complete All Required Qualification Audits (31 Oct 90)
- RW Letter to NRC Documenting DOE Approval of OCRWM QA Program (11 Dec 90)
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YUCCA MOUNTAIN

- DOE Files Motion for Summary Judgement (04 Oct 90)
- State Files Motion to Maintain Stay of DOE Suit (Late Oct 90)
- DOE Resubmits Permit Applications to State of Nevada (1 Oct 90)
- Technical Exchange on Calico Hills (12 Oct 90)
- Technical Exchange on Performance Assessment (27 Nov 90)
- NRC Meeting on Future Interactions (13 Dec 90)
- NRC Briefing by RW-1 (18 Dec 90)
- Complete Study Plans for Major Ongoing Field Activities (30 Nov 90)
- Issue Report and Recommendations to RW-1 for Review (2 Oct 90)

MRS

- Siting Process Status Report to S-1 (16 Oct 90)

SECTION 4. TOTAL FIRST REPOSITORY

COST PROFILE

FY91 actual costs through the first quarter for the first repository were \$37.2 million. The distribution by project was \$35.6 million for the Yucca Mountain project (YMP), \$1.2 million for technical support/repository technology program (RTP) activities, \$0.2 million for the basalt project (BWIP) closeout, and \$0.2 million for the salt project (SRP) closeout.

Through the first quarter of FY91, cumulative actual cost (from FY83) for the first repository projects totaled \$2,047 million of which 45 percent (or \$910 million) was accounted for by YMP, 25 percent (or \$514 million) by SRP, 23 percent (or \$481 million) by BWIP, and 7 percent (or \$142 million) by technical support/RTP activities.

COST PROFILE FOR TOTAL FIRST REPOSITORY

COST PROFILES

BWIP

SRP

COST PROFILE FOR YMP

HISTORICAL

(ENTRIES MAY NOT ADD TO TOTAL DUE TO INDEPENDENT ROUNDING)

COST PROFILE FOR TECHNICAL SUPPORT/RTP

SECTION 5. TRANSPORTATION

COST PROFILE

- FY91 actual costs through the first quarter were \$2.6 million. The breakdown is as follows:
Idaho Operations Office - \$2.0 million and Chicago Operations Office - \$0.6 million.
- Through the first quarter of FY91 the cumulative costs since 1984 were \$86.1 million.

COST PROFILE FOR TRANSPORTATION

HISTORICAL

(ENTRIES MAY NOT ADD TO TOTAL DUE TO INDEPENDENT ROUNDING)

SECTION 6. MONITORED RETRIEVABLE STORAGE

COST PROFILE

Includes MRS work scope administered through the Richland Operations Office.

FY91 actual costs for the MRS project through first quarter were \$0.1 million.

Through the first quarter of FY91, the cumulative costs since 1983 were \$41.9 million.

COST PROFILE FOR MRS

SECTION 7. SYSTEMS INTEGRATION

COST PROFILE

Systems integration includes work performed by Pacific Northwest Laboratory (PNL) and Oak Ridge National Laboratory (ORNL).

FY91 actual costs for combined systems integration activities through the first quarter were \$0.8 million.

Through the first quarter of FY91, the cumulative costs since 1985 were \$37.5 million.

COST PROFILE FOR SYSTEMS INTEGRATION

SECTION 8. ENGINEERING DEVELOPMENT

COST PROFILE

Work on engineering development is administered through the Idaho Operations Office.

FY91 actual costs through the first quarter for the engineering development activities were \$4.1 million.

Through the first quarter of FY91, the cumulative costs since 1985 were \$41.5 million.

COST PROFILE FOR ENGINEERING DEVELOPMENT

HISTORICAL

SECTION 9. PROGRAM MANAGEMENT/TECHNICAL SUPPORT

COST PROFILE

Activities include program management (federal salaries, benefits, and travel); contractual services (administrative support costs); and technical support (i.e., NWF audit services and fee verification, technical support activities, program integration, external relations and policy).

FY91 actual costs through the first quarter for the program management/technical support activities were \$10.6 million.

Through the first quarter of FY91, the cumulative costs since 1983 were \$415.7 million.

COST PROFILE FOR PROGRAM MANAGEMENT/TECHNICAL SU

HISTORICAL