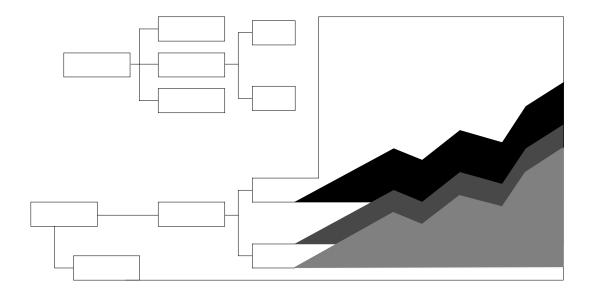
## Monthly Summary of

## **Program Financial and Budget Information**

## FY 2001 Year-end Report



# Office of Civilian Radioactive Waste Management

Office of Program Management and Administration

#### **Foreword**

The *Monthly Summary of Program Financial and Budget Information* is a compendium of program-level financial and budget information which is intended to assist the Director, OCRWM, in managing the program. It utilizes the Program Work Breakdown Structure and the Budget and Reporting codes instituted at the start of FY 1997.

The report provides a variety of financial and budget-related data, including Nuclear Waste Fund status, Total System Life Cycle Cost (TSLCC) estimates, historical data on cost and budget, and current year obligations and costs. Major sources of data include the Financial Information System (FIS) and the Approved Funding Program (AFP).

The report focuses on the program level; it is not meant to duplicate more detailed project or contractor reporting.

Questions or comments regarding the *Monthly Summary of Program Financial and Budget Information* should be forwarded to the Director, Program Management Division, RW-53.

## **Monthly Summary of Program Financial and Budget Information**

### Table of Contents

| 1.0 | Program Overview   | <u>Page</u> |
|-----|--|-------------|
|     | FY2001-FY2002 Budget Formulation Summary                   | 1-1         |
|     | Nuclear Waste Fund Balance and Income Stream               | 1-2         |
|     | Changes in Nuclear Waste Fund Information – January 2001   | 1-3         |
|     | Nuclear Waste Fund Income Sources and Disbursements        | 1-4         |
|     | Summary of Total System Life Cycle Costs                   | 1-5         |
|     | Manpower - Federal Personnel                               | 1-6         |
|     | Manpower - Contractor Personnel                            | 1-7         |
|     | FY2001 Obligation and Cost Status - Program                | 1-8         |
| 2.0 | Yucca Mountain Site Characterization Program Element       |             |
|     | FY2001 Obligation and Cost Status                          | 2-1         |
| 3.0 | WAST Program Element                                       |             |
|     | FY2001 Obligation and Cost Status                          | 3-1         |
| 4.0 | Program Integration Program Element                        |             |
|     | Quality Assurance FY2001 Obligation and Cost Status        | 4-1         |
|     | Program Management FY2001 Obligation and Cost Status       | 4-2         |
|     | Human Resources & Admin. FY2001 Obligation and Cost Status | 4-3         |

## **Monthly Summary of Program Financial and Budget Information**

## Appendix

|                                 | <u>Page</u> |
|---------------------------------|-------------|
| Program History                 |             |
| Major Historical Milestones     | A-1         |
| Program Cost History            | A-3         |
| Program Budget History (Figure) | A-4         |
| Program Budget History (Table)  | A-5         |

#### FY 2001 - FY 2002 BUDGET FORMULATION SUMMARY

(dollars in thousands)

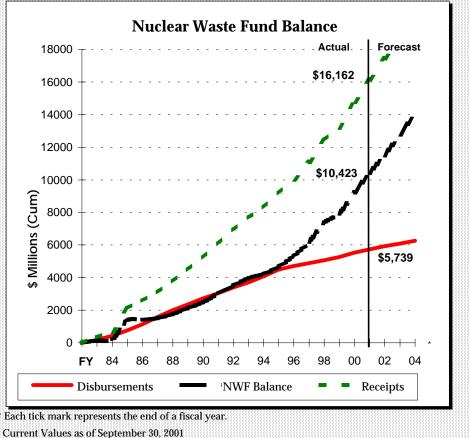
|   |   |   | )1 CONGRESS<br>DGET REQUE    |                                  |                                  |   |                                 |  | 2002 CONGRES<br>UDGET REQUI  |                                  |                                  |                                     |
|---|---|---|------------------------------|----------------------------------|----------------------------------|---|---------------------------------|--|------------------------------|----------------------------------|----------------------------------|-------------------------------------|
| PROGRAM ELEMENT                                 | FY 1999<br>Enacted<br>Appropriation (a) | FY 2000<br>Enacted<br>Appropriation (b) | FY 2001<br>Budget<br>Request | FY 2002<br>Budget<br>Request (c) | FY 2003<br>Budget<br>Request (c) | FY 2001<br>ENACTED<br>Appropriation (f) | FY 2000<br>Comparable<br>Budget | FY 2001<br>Comparable<br>Appropriation | FY 2002<br>Budget<br>Request | FY 2003<br>Budget<br>Request (g) | FY 2004<br>Budget<br>Request (g) | FY 2002<br>ENACTED<br>Appropriation |
| YUCCA MOUNTAIN SITE CHAR. PROJECT               | \$281,879                               | \$281,175                               | \$358,306                    | \$357,917                        | \$349,115                        | \$323,542                               | \$270,5                         |  | \$355,465                    | \$363,000                        | \$367,000                        | TBD                                 |
| WASTE ACCEPTANCE, STORAGE<br>AND TRANSPORTATION | \$1,850                                 | \$1,795                                 | \$3,800                      | \$6,118                          | \$22,050                         | \$2,661                                 | \$1,7                           | 95 \$2,661                             | \$5,868                      | \$12,000                         | \$12,000                         | TBD                                 |
| ACCELERATOR TRANSMUTATION OF WASTE              | \$4,000                                 |   |                              |                                  |                                  | \$0                                     |                                 |  |                              |                                  |                                  |                                     |
| PROGRAM INTEGRATION:                            |   |   |                              |                                  |                                  |   |                                 |  |                              |                                  |                                  |                                     |
| Quality Assurance                               | (d)                                     | (d)                                     | (d)                          | (d)                              | (d)                              | \$0                                     | (d)                             | (d)                                    | \$6,384                      | \$5,000                          | \$5,000                          | TBD                                 |
| Program Management                              | \$6,009                                 | \$4,761                                 | \$5,921                      | \$6,388                          | \$6,390                          | \$6,233                                 | \$4,7                           |  | \$7,204                      | \$3,000                          | \$3,000                          | TBD                                 |
| Human Resources & Admn.                         | \$5,241                                 | \$3,860                                 | \$5,845                      | \$5,693                          | \$5,561                          | \$5,838                                 | \$3,8                           |  | \$5,656                      | \$3,000                          | \$3,000                          | TBD                                 |
| Subtotal, Program Integration                   | \$11,250                                | \$8,621                                 | \$11,766                     | \$12,081                         | \$11,951                         | \$12,071                                | \$8,6                           | 21 \$12,071                            | \$19,244                     | \$11,000                         | \$11,000                         | TBD                                 |
| Program Direction                               | \$58,486                                | \$59,584                                | \$63,628                     | \$61,384                         | \$59,884                         | \$62,800                                | \$59,5                          | 90 \$62,662                            | \$64,402                     | \$65,000                         | \$75,000                         | TBD                                 |
| TOTAL, PROGRAM INTEGRATION                      | \$69,736                                | \$68,205                                | \$75,394                     | \$73,465                         | \$71,835                         | \$74,871                                | \$68,1.                         | 21 \$74,733                            | \$83,646                     | \$76,000                         | \$86,000                         | TBD                                 |
| TOTAL PROGRAM                                   | \$357,465                               | \$351,175                               | \$437,500                    | \$437,500                        | \$443,000                        | \$401,074                               | \$340,5                         | 11 \$390,379                           | \$444,979                    | \$451,000                        | \$465,000                        | TBD                                 |
| TOTAL FEDERAL STAFFING (FTEs)                   | 183                                     | 196                                     | 200                          | (e)                              | (e)                              |   | (e)                             | (e)                                    | (e)                          | (e)                              | (e)                              |                                     |

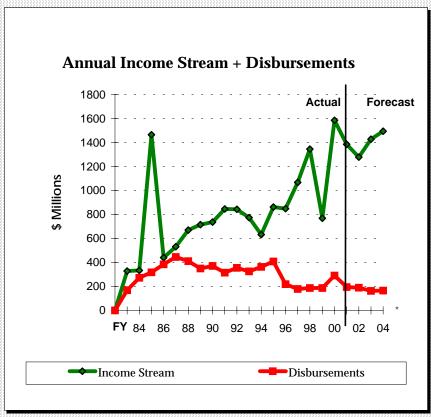
Note: This chart uses the actual structure (i.e. Program Elements) used in the budget submissions in the OCRWM budget formulation process.

- (a) Reflects the \$535K rescinded from the FY 1999 Nuclear Waste Disposal Fund per the Emergency Steel Loan Guarantee and Emergency Oil and Gas Guaranteed Loan Act of 1999 (H.R. 1664).
- (b) Per P.L. 106-113, a general reduction of .038 percent was applied to the Nuclear Waste Fund (\$899K) and the Defense Nuclear Waste Appropriation (\$426K).
- (c) The outyears shown here are preliminary, and do not necessarily reflect program requirements. Future budget requests for the program have yet to be established and will be determined through the annual executive and Congressional budget process.
- (d) The Quality Assurance budget is included in the Program Direction account under support services.
- (e) FTEs were not provided in the Congressional Budget Request.
- (f) Sources of the appropriation are H.R. 5483, FY 2001 Energy and Water Development Appropriations, which was enacted in Public Law 106-377, and the FY 2001 Consolidated Appropriations Act, which rescinded \$695,000. Allocations to each Program Element are from the OCRWM Program Management Division (Michael Wolfe).
- (g) The outyears shown here are preliminary, and do not necessarily reflect program requirements. Future budget requests for the Program has yet to be established and will be determined through the annual Executive and Congressional budget process.

### NUCLEAR WASTE FUND BALANCE AND INCOME STREAM

FOR EXPLANATION OF CHANGES TO NWF INFORMATION MADE IN JANUARY 2001, SEE PAGE 1-3





Sources: Refer to Page 1-4 for sources of information on this chart.

#### **Changes in Nuclear Waste Fund Information – January 2001**

Beginning with the January 2001 report, investment returns and fee income data are being changed. These changes affect both actual prior-year income and estimates of future income.

#### **Reporting and Forecasting Investment Returns**

**Investment returns for zero-coupon bonds** – Investment returns from zero-coupon bonds are being restated to reflect the Department of the Treasury's method of reporting actual returns in the President's Budget and to provide more reliable estimates of future returns. This change only affects the returns from the zero-coupon portion of the Nuclear Waste Fund (NWF) portfolio (currently about one-half of the portfolio). Returns from Treasury bills and coupon-bearing bonds are unaffected.

**Old calculation method** – Previously, the return on zero-coupon bonds was calculated using the straight-line amortization method. This method assumes that the value of the bond increases by the same amount every year; it is calculated as the difference between the maturity value of the bond and the purchase price, divided by the number of years to maturity. For consistency, this method was used for both actual and projected returns. However, it had two disadvantages: (1) returns calculated by this methodology conflicted with actual returns reported for each fiscal year by the Department of the Treasury, and (2) estimated returns calculated by this method tended to overstate imputed income from zero-coupon bonds in the early years of a bond's lifetime.

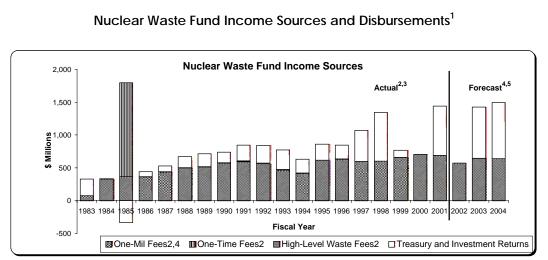
New calculation method – The NWF began purchasing zero-coupon bonds in 1997. Zero-coupon bonds do not pay periodic interest, but are purchased at a deep discount and gradually increase in value until they reach their face value at maturity. For the President's Budget, the Treasury Department defines the annual return of a zero-coupon bond as the change in its market price during the year. This value is now used to report actual returns of the zero-coupon bond portion of the NWF investment portfolio at the end of each fiscal year. However, price changes are dependent on market conditions and are therefore inherently unpredictable. For that reason, the effective yield method, which is based on McGraw Hill/DRI interest rate forecasts, is now used to estimate future returns for the zero-coupon bond portion of the NWF investment portfolio. This method assumes that the value of a zero-coupon bond increases by the same percentage every year; it is calculated as the beginning value of the bond, multiplied by the market yield at the time the bond was purchased. Over time, this should closely match the bond's actual change in price. However, significant differences for any given fiscal year between estimated returns calculated using this methodology and year-end market value returns as reported by Treasury should be expected.

**Impact of change** – Using this new methodology changed the investment returns for FYs 1997 through 2000 from \$520M, \$561M, \$780M, and \$752M, respectively, to \$471M, \$743M, \$106M, and \$883M, respectively. As a result, cumulative investment returns were reduced from \$2.613B to \$2.203B, and the NWF balance was reduced from \$9.644B to \$9.234B.

#### **Reporting and Forecasting Fee Income**

**Reporting adjustments from PECO settlement** – Prior to January 2001, fee reductions to reimburse PECO (per the July 19, 2000 Amendment to Contract "DE-CR01-83 NE44405 Between U.S. Department of Energy and PECO Energy Company) were erroneously recorded as adjustments to one-time fees. These adjustments are now correctly reported as adjustments to the one-mil/kWh fees. This change reduced the actual one-mil fees by \$4M in both FY 2000 and FY 2001, and increased the actual one-time fees by \$4M in each of these years.

**Forecasting one-mil/kWh fee income** – Prior to January 2001, projected one-mil fees were based solely on forecast electricity generation and sales. Projected one-mil fees now include adjustments for potential litigation settlements. For FYs 2001, 2002, and 2003, the forecast one-mil fees changed from \$717M, \$704M, and \$702M, respectively, to \$620M, \$640M, and \$625M, respectively.



#### \$ Millions

|             | Spent N                        | luclear Fuel Fe               | es                              | Defense Fees                          | Treasury Loan          |                                      | Total            |                                      |                |
|-------------|--------------------------------|-------------------------------|---------------------------------|---------------------------------------|------------------------|--------------------------------------|------------------|--------------------------------------|----------------|
| Fiscal Year | One-Mil<br>Fees <sup>2,4</sup> | One-Time<br>Fees <sup>2</sup> | Cumulative<br>Fees <sup>2</sup> | High-Level<br>Waste Fees <sup>2</sup> | Principal<br>(Payment) | Investment<br>Returns <sup>3,5</sup> | Annual<br>Income | Annual<br>Disbursements <sup>6</sup> | NWF<br>Balance |
| 1983        | 74                             | 0                             | 74                              | 0                                     | 254                    | 0                                    | 327              | 169                                  | 158            |
| 1984        | 330                            | 0                             | 404                             | 0                                     | 5                      | 0                                    | 334              | 271                                  | 221            |
| 1985        | 367                            | 1,427                         | 2,198                           | 0                                     | -258                   | -74                                  | 1,463            | 317                                  | 1,367          |
| 1986        | 362                            | 6                             | 2,566                           | 0                                     | 0                      | 73                                   | 441              | 385                                  | 1,423          |
| 1987        | 435                            | 6                             | 3,007                           | 0                                     | 0                      | 89                                   | 530              | 446                                  | 1,507          |
| 1988        | 498                            | 6                             | 3,511                           | 0                                     | 0                      | 165                                  | 669              | 412                                  | 1,764          |
| 1989        | 513                            | 6                             | 4,030                           | 0                                     | 0                      | 196                                  | 715              | 349                                  | 2,130          |
| 1990        | 570                            | 6                             | 4,606                           | 0                                     | 0                      | 161                                  | 737              | 372                                  | 2,495          |
| 1991        | 594                            | 6                             | 5,206                           | 5                                     | 0                      | 241                                  | 846              | 315                                  | 3,026          |
| 1992        | 560                            | 6                             | 5,772                           | 8                                     | 0                      | 268                                  | 842              | 354                                  | 3,514          |
| 1993        | 466                            | 11                            | 6,249                           | 0                                     | 0                      | 296                                  | 773              | 325                                  | 3,962          |
| 1994        | 418                            | 4                             | 6,671                           | 0                                     | 0                      | 210                                  | 632              | 364                                  | 4,229          |
| 1995        | 615                            | 0                             | 7,286                           | 0                                     | 0                      | 246                                  | 861              | 408                                  | 4,682          |
| 1996        | 633                            | 1                             | 7,920                           | 0                                     | 0                      | 212                                  | 847              | 218                                  | 5,311          |
| 1997        | 596                            | 0                             | 8,516                           | 0                                     | 0                      | 471                                  | 1,067            | 178                                  | 6,200          |
| 1998        | 600                            | 0                             | 9,116                           | 0                                     | 0                      | 743                                  | 1,343            | 186                                  | 7,357          |
| 1999        | 662                            | 0                             | 9,778                           | 0                                     | 0                      | 106                                  | 768              | 186                                  | 7,939          |
| 2000        | 702                            | 0                             | 10,480                          | 0                                     | 0                      | 883                                  | 1,585            | 290                                  | 9,234          |
| 2001        | 689                            | 0                             | 11,169                          | 0                                     | 0                      | 694                                  | 1,383            | 194                                  | 10,423         |
| Cum-to-date | 9,684                          | 1,485                         | 11,169                          | 13                                    | 0                      | 4,980                                | 16,162           | 5,739                                | 10,423         |
|             |                                |                               |                                 | Forecast                              |                        |                                      |                  |                                      |                |
| 2002        | 572                            | 0                             | 11,741                          | 0                                     | 0                      | 706                                  | 1,278            | 188                                  | 11,512         |
| 2003        | 647                            | 0                             | 12,388                          | 0                                     | 0                      | 779                                  | 1,426            | 163                                  | 12,775         |
| 2004        | 640                            | 0                             | 13,028                          | 0                                     | 0                      | 853                                  | 1,493            | 166                                  | 14,102         |

FOR EXPLANATION OF CHANGES TO NWF INFORMATION MADE IN JANUARY 2001, SEE PAGE 1-3

1-4

<sup>1</sup> Current Values as of September 30, 2001. Rows may not add due to independent rounding. Receipts and Disbursements do not include Defense Nuclear Waste Disposal appropriations because these funds do not flow through the Nuclear Waste Fund. For FYs 1993 through 2001, these appropriations were \$100M, \$120M, \$129.430M, \$163.4M, \$200M, \$190M, \$189M, \$111.6M, and \$209.7M, respectively.

<sup>2</sup> Actual Fees from the "NWF Summary of Cash Balances" issued monthly by the DOE Office of Chief Financial Officer.

<sup>3</sup> Actual Investment Returns for FY 2000 and prior years include coupon interest receipts; net premiums and discounts paid and received on bills, notes, and bonds; and the annual change in market value of zero coupon bonds. Actual Investment Returns for FY 2001 include accrued coupon interest and amortized premiums and discounts of bills, notes, and bonds; and amortized interest income based on the effective yield at the time of bond purchase for zero-coupon bonds.

 $<sup>4\</sup> Forecast\ kWh\ Fee\ Receipts\ are\ based\ on\ EIA\ projections\ as\ of\ 9/7/2001\ with\ adjustments\ made\ for\ potential\ litigation\ settlements.$ 

<sup>5</sup> Forecast Investment Returns consist/include anticipated effective yield earnings on all securities from the date of purchase.

<sup>6</sup> Forecast Disbursements are based on FY2001 appropriations and the OCRWM FY2002 Congressional Budget Request, with appropriations adjusted to disbursements using OMB's simplified (50/50) formula plus \$27 million for future appropriations to the NRC and TRB. Actual and Forecast disbursements include Program Expenditures, NRC, NWN, and NWTRB appropriations, interest on Treasury loans (FY84 \$3M, FY85 \$5M) and interest refunded to utilities (FY88 \$7M, FY89 \$1M, FY92 \$7M, FY93 \$41M, FY94 \$48M, FY95 \$19M, FY96 \$1M).

# SUMMARY OF TOTAL-SYSTEM LIFE-CYCLE COSTS

(millions of 2000 dollars)

| Cost Element                               | Total Cost |
|--|------------|
| Monitored Geologic Repository              | \$42,070   |
| Waste Acceptance, Storage & Transportation | 5,960      |
| Nevada Transportation                      | 840        |
| Program Integration/Non-OCRWM (NRC, NWTRB) | 4,070      |
| Institutional                              | 4,580      |
| 2000 TSLCC Total                           | \$57,520   |

| Total Estimate for Program                          | \$57,520 |
|---|----------|
| Program Cost, 2001 - 2119                           | \$49,290 |
| Historical Program Cost, 1983 - 2000 <sup>(a)</sup> | \$8,230  |

(a) Historical program cost is \$6.7 Billion in year-of-expenditure dollars, as of 2000.

Data extracted from "Analysis of the Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program", DOE/RW-0533, May 2001.

#### **MANPOWER - FEDERAL PERSONNEL**

(Nuclear Waste Fund)

| Office   | Budgeted<br>FY2001<br>FTEs | Total<br>On Board (b) |
|--|----------------------------|-----------------------|
| Office of the Director   | (a)                        | 11                    |
| Office of Quality Assurance (c)  | (a)                        | 9                     |
| Office of Acceptance, Transportation,<br>& Integration<br>Office of Program Management &<br>Administration | (a)<br>(a)                 | 19<br>21              |
| Yucca Mountain Site Characterization Office  | _ (a)_                     | 100                   |
| Subtotal   | 179                        | 160                   |
| Nevada Operations Office   | 6                          | 6                     |
| Subtotal   | 6                          | 6                     |
| DOE HQ Matrix Support  |                            |                       |
| CI/PA  | 2                          | 2                     |
| EI   | 1                          | 1                     |
| GC   | 6                          | 7                     |
| EH   | 1                          | 1                     |
| MA   | 4                          | 4                     |
| CR   |                            | 2                     |
| Subtotal   | 16                         | 17                    |
| TOTAL  | 201                        | 183                   |

Source: RW-56 Human Resources Division as of September 23, 2001.

<sup>(</sup>a) FY 2001 Budgeted FTEs are not established at the office level
(b) Head count
(c) Ten FTEs support YMSCO; duty stationed in Nevada

#### **MANPOWER - CONTRACTOR PERSONNEL**

| Contractor                     | Actual<br>FTEs<br>(FY 1997) | Actual<br>FTEs<br>(Sep 1997) | Actual<br>FTEs<br>(FY 1998) | Actual<br>FTEs<br>(Sep 1998) | Actual<br>FTEs<br>(FY 1999) | Actual<br>FTEs<br>(Sep 1999) | Actual<br>FTEs<br>(FY 2000) | Actual<br>FTEs<br>(Sep 2000) | Actual<br>FTEs<br>(FY 2001) | Actual<br>FTEs<br>(Sep 2001) |
|--------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Bechtel SAIC Company, LLC      |                             |                              |                             |                              |                             |                              |                             |                              | 568.7                       | 1,383.4                      |
| (BSC) (a)                      |                             |                              |                             |                              |                             |                              |                             |                              |                             |                              |
| TRW Environmental              | 1,739.5                     | 2,222.5                      | 1,952.6                     | 2,017.7                      | 1,697.1                     | 1,547.9                      | 1,732.9                     | 1,850.1                      | 505.0                       | 0.0                          |
| Safety Systems (TESS) (b)      |                             |                              |                             |                              |                             |                              |                             |                              |                             |                              |
| USGS                           | 124.2                       | 122.3                        | 115.5                       | 115.1                        | 108.4                       | 109.6                        | 85.2                        | 79.1                         | 70.8                        | 50.9                         |
| KENROB and Associates, Inc.    | 71.3                        | 95.5                         | 52.6                        | 44.8                         | 30.1                        | 0.0                          | 0.0                         | 0.0                          | 0.0                         | 0.0                          |
| RSIS                           |                             |                              |                             |                              | 18.9                        | 52.5                         | 57.3                        | 53.7                         | 54.4                        | 40.7                         |
| SAIC/QATSS                     | 52.5                        | 82.0                         | 77.8                        | 82.0                         | 78.9                        | 100.4                        | 77.3                        | 112.3                        | 32.9                        | 0.0                          |
| Booz-Allen & Hamilton Inc. (c) | 27.2                        | 49.0                         | 72.6                        | 49.0                         | 85.4                        | 81.6                         | 90.1                        | 108.3                        | 91.5                        | 72.6                         |
| Alpha Services                 | 26.8                        | 25.0                         | 26.9                        | 25.0                         | 26.8                        | 29.0                         | 27.7                        | 28.2                         | 27.7                        | 22.4                         |
| Jason & Associates             | 12.4                        | 24.4                         | 50.8                        | 24.4                         | 40.0                        | 21.1                         | 33.5                        | 57.4                         | 48.2                        | 55.0                         |
| Navarro Quality Services       |                             |                              |                             |                              |                             |                              |                             |                              | 9.7                         | 19.3                         |
| Other (Minors) (d)             | 7.7                         | 8.5                          | 6.7                         | 7.5                          | 5.5                         | 5.6                          | 5.0                         | 6.8                          | 0.3                         | 0.0                          |
|                                | 2,061.6                     | 2,629.2                      | 2,355.5                     | 2,365.5                      | 2,091.1                     | 1,947.7                      | 2,109.0                     | 2,295.9                      | 1,409.1                     | 1,644.2                      |

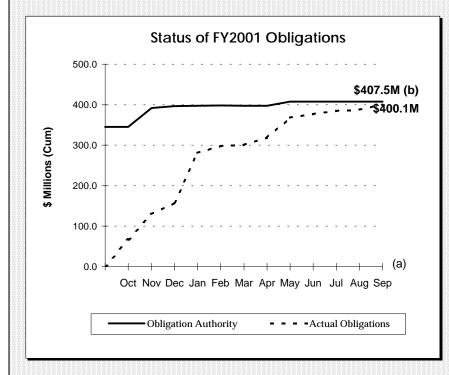
Sources: Yucca Mountain Site Characterization Project Multi-year Planning System (MYPS) as of September 30, 2001 plus
TRW Environmental Safety Systems Inc. (TESS) reported indirect labor as of February 28, 2001.

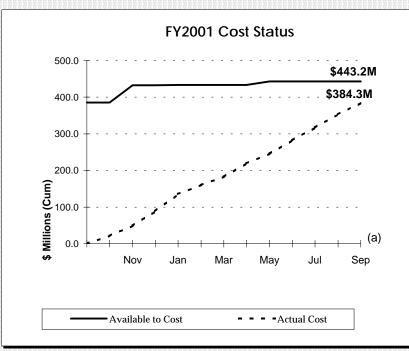
1-7 Mpcn0109.XLS 12/13/2001

<sup>(</sup>a) BSC FTEs start with March 2001.(b) TESS FTEs end with February 2001.(c) Contract awarded 2nd Quarter, FY 1997

 $<sup>\</sup>label{lem:condition} \mbox{(d) Includes Quality Services Associates Inc.\ and\ Energy\ Information\ Administration.}$ 

## FY2001 OBLIGATION AND COST STATUS PROGRAM

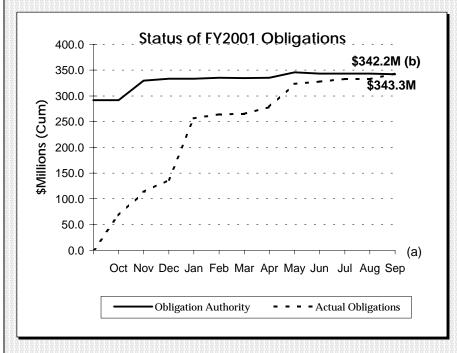


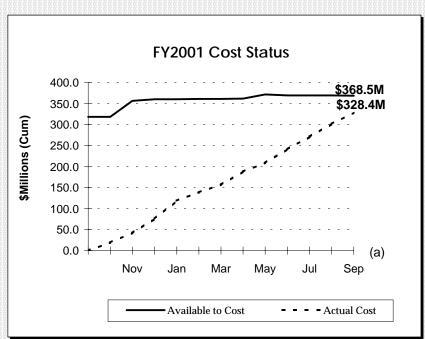


- (a) Each tick mark represents the end of a calendar month.
- (b) Total Obligational Authority (TOA) includes \$4.9M of prior year obligations which have been de-obligated during FY 2001.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

# FY2001 OBLIGATION AND COST STATUS YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT



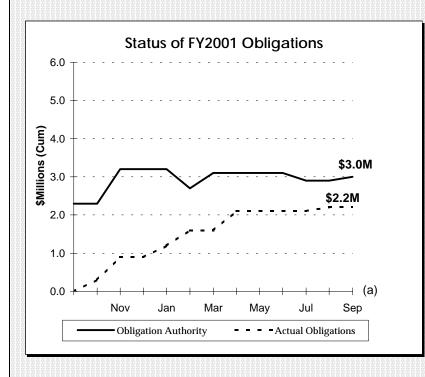


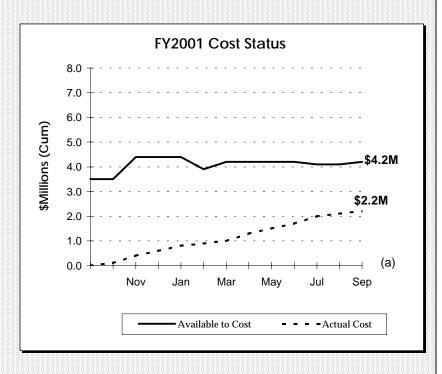
Note: Charts do not include Yucca Mountain quality assurance.

- (a) Each tick mark represents the end of a calendar month.
- (b) Total Obligational Authority (TOA) includes \$4.6M of prior year obligations which have been de-obligated during FY 2001.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

# FY2001 OBLIGATION AND COST STATUS WASTE ACCEPTANCE, STORAGE, AND TRANSPORTATION



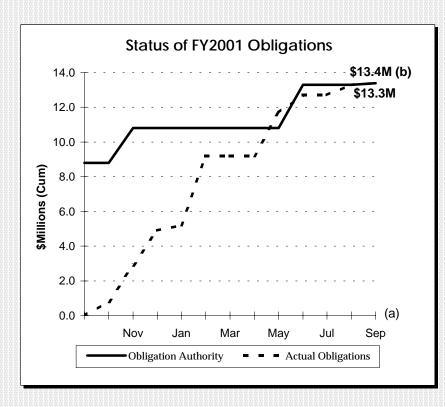


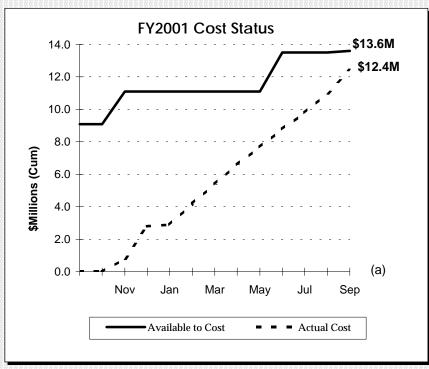
Note: Charts do not include WAST quality assurance.

(a) Each tick mark represents the end of a calendar month.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

# FY2001 OBLIGATION AND COST STATUS QUALITY ASSURANCE



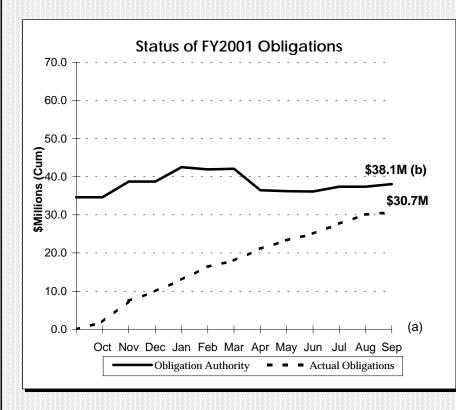


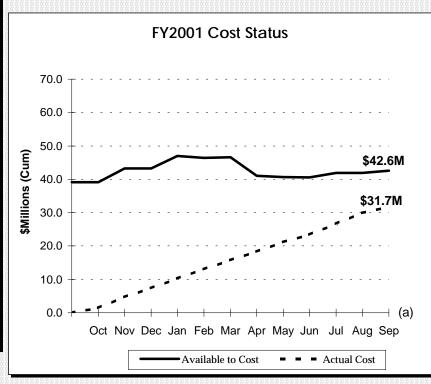
Note: Charts include Yucca Mountain and WAST quality assurance.

- (a) Each tick mark represents the end of a calendar month.
- (b) Total Obligational Authority (TOA) includes \$.1M of prior year obligations which have been de-obligated during FY 2001.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

# FY2001 OBLIGATION AND COST STATUS PROGRAM MANAGEMENT

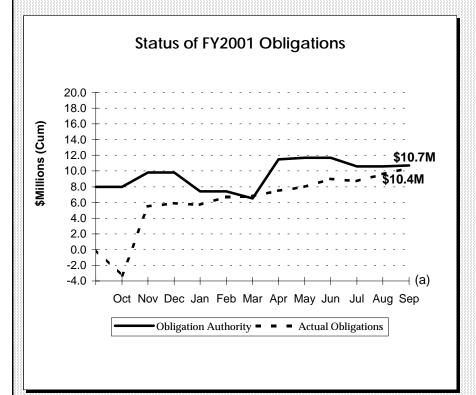


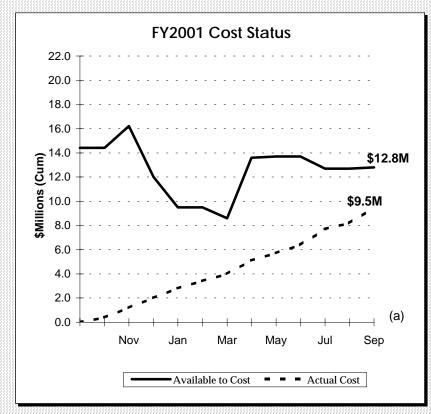


- (a) Each tick mark represents the end of a calendar month.
- (b) Total Obligational Authority (TOA) includes \$.2M of prior year obligations which have been de-obligated during FY 2001.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

## FY2001 OBLIGATION AND COST STATUS HUMAN RESOURCES AND ADMINISTRATION



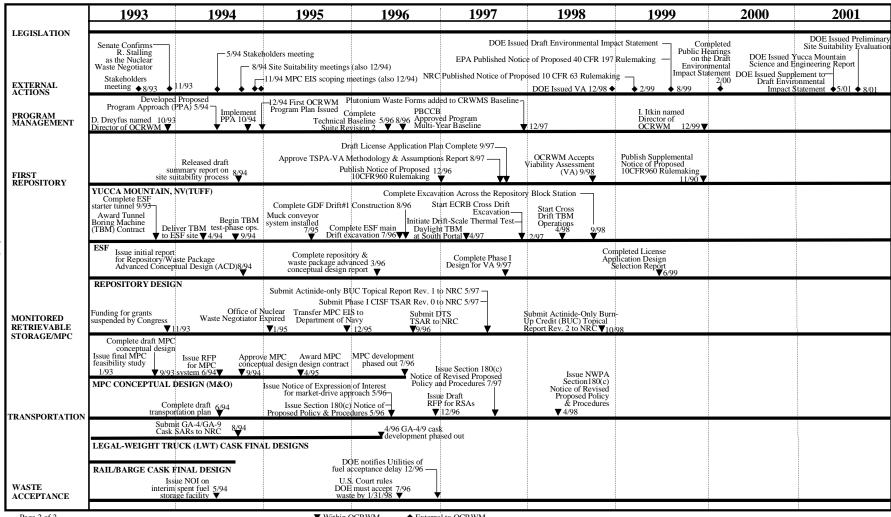


(a) Each tick mark represents the end of a calendar month.

Note: Quantities shown are based on the FY 2001 September AFP and the most recent (i.e., September 30, 2001) FIS report.

| Civilian R  | 1983   | 1984   | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | 1991   | 1992  |
|---|--|--|---|---|---|---|---|---|--|---|
| LEGISLATION   | President sig<br>Act (NWPA                               | ns Nuclear Waste Po<br>establishing OCRW   | licy<br>M   | Congress enacts l<br>Policy Amendme         | Nuclear Waste<br>nts Act (NWPAA)u   | 12/87   |   |   | Congr<br>Energy  | ess Enacts 10/92<br>Policy Act u  |
| EXTERNAL<br>ACTIONS   | NRC publish<br>confidence ri                             | es waste 8/84<br>ilemaking 11  | President au<br>OCRWM to<br>dispose DHI<br>u 4/85 | thorizes                                    | MRS commission<br>ues first license<br>pendent dry  | submits report to Co  | RB) issues first repoingress 11/89 ————————————————————————————————————       |   | 0 Senate confirm<br>the nuclear waste<br>1/91 NRC accept<br>1 OA progran                               | negotiator<br>s OCRWM   |
| ACTIONS   | comitaence   | g U  | <b>G</b> 4703                                     | у вренета                                   | or storage  | Issue Ma  | nagement Systems In<br>Bartlett named   | nprovement Strategy   |  | 1   |
| PROGRAM<br>MANAGEMENT   | B. Rusche named<br>Director of OCR                       | first  | Issue<br>Mission<br>Plant 6/85                    | Issue Draft Mission<br>Plan Amendment       | Amendmer<br>t 1/87 t 6/87   | Issue D<br>an Draft Mission<br>it Plan Amendment<br>t 6/88  | irector of OCRWM 4<br>Issue Secretary's<br>60-day report 1 1/<br>to Congresst | 89   Awa<br>Cont<br>t t 8/90  | ract 2/91 Ameno  | Praft First<br>n Plan Director's<br>lment Forum<br>1 t 5/92   |
|   | Issue final re<br>guidelines (10 C<br>Issue Draft EAs fo |  | Issue final geolo                                 | President<br>for charac                     | nominates 5 sites<br>approves 3 sites<br>cterization  | Issue SCP 12/88 Issue consultation draft Site Char. Plan (SCP) 1/88 Complete ESF  | -12/88 Issue Section<br>socioeconomic rep                                     | ort<br>Issue early  | site suitability<br>ion report 2/92  | Receive   |
| FIRST<br>REPOSITORY   | 2/83 Identify 9 pot<br>t suitable sites                  | entially<br>t  | environ. Char. Re<br>t 9/8                        | ports                                       | NWPAA mandates<br>ite Char. At Yucca<br>ountain only 12/87t   | Title I Design  | 7/89 NRC<br>t char  | issues site Re<br>analysis quality  | ceive air 6/91<br>permits t  | final permit<br>from Nevada<br>t t 3/92   |
| SECOND<br>REPOSITORY<br>MONITORED<br>RETRIEVABLE<br>STORAGE (MRS)/<br>MULTI-PURPOSE | Issue draft<br>siting<br>guidelines<br>t 2/83            | Issue draft area re report (12 areas in Issue final region-to-screening method:  Issue MRS A  Issue report on nee feasibility of a | area alogy t 4/85  Environmental — ssessment 2/86 | HANFORI<br>DEAF SM<br>Postpoi<br>second     | ne site-specific work<br>repository indefinite<br>twPAA terminates se<br>pository program t<br>3/87 Submit p<br>facility at Oal | (SALT))  LORATORY STU  for ly second 12/87 proposal for an MRS k Ridge, TN Oak Ridge proposal annulled & revoked by NWPAA | Issue re<br>5/89DOE pc<br>t MRS fa  | Issue report on alternatives for ESF config.  SSF) ALTERNATIVIT new surface-based  NE  4/9/ Pl  Awa port on sittion on Announce | testing 7/91  W SURFACE-B  Award first— ase II grants ird first Phase grants 10/91 e grants itv 6/91 t | tart ESF title II (KD2) lessign   12/91 ESF   Start 10/92 ACD    ASED TESTING  Generic MRS Conceptual Design Report  11/92 t  t |
| CANISTER (MPC)  | conceptual design<br>t 2/83                              | JAL DESIGN (R.M  | t c   | ssue Clinch River M<br>onceptual design rep | RS sy<br>ort  | stems study<br>t 6/88   | 6/89 study s<br>t<br>STEMS STUDY  | ummåry report   | Ca<br>feasibilit   | Aulti-Purpose<br>nister (MPC)<br>study 10/92t   |
| TRANSPORTATION  |  | Issue draft  | Institutional<br>Plan 9/85 t                      | 1/86 Issue Business                         | Plan  | bar   | Start LWT & rail/<br>ge cask final design                                     | Issue draft Section 1<br>for public of Announce<br>1/90 to acquire<br>t technological   | strategy<br>existing 7/91  | Issue final<br>Section 180(c)<br>strategy 11/92   |
|   |  |  |   |   |   |   | ASK PRELIM, DES   | , LWI   | CASK FINAL I   | INAL DESIGN   |
| WASTE<br>ACCEPTANCE   | Sign standar t with utilities                            |  | Rece<br>6/85 fee <sub>I</sub><br>t                | ive one-time<br>ayment                      | Issue first annual capacity report t 6/87   |   |   | Is<br>priority  | sue acceptance<br>ranking 12/91t   | Begin<br>receiving<br>delivery<br>1/92 commitment<br>schedules  |
| Page 1 of 2   |  |  |   | t W   | ithin OCRWM   | u External to OCI   | DWM   |   |  |   |

#### Civilian Radioactive Waste Management Program/Major Historical Milestones (CY 1993-2001)



Page 2 of 2

A-2

▼ Within OCRWM

◆ External to OCRWM

#### PROGRAM COST HISTORY (d) (NUCLEAR WASTE FUND AND DEFENSE APPROPRIATION)

(dollars in thousands)

|  | FY 1983 | FY 1984 | FY 1985 | FY 1986 | FY 1987 | FY 1988 | FY 1989 | FY 1990 | FY 1991 | FY1992  | FY 1993 | FY1994  | FY1995  | FY1996  | FY1997  | FY1998  | FY1999  | FY2000  | FY2001  | TOTAL     |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| OCRWM                                  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| FIRST REPOSITORY                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| Basalt Project                         | 42,959  | 60,307  | 69,848  | 104,487 | 128,179 | 61,707  | 8,656   | 4,592   | 1,368   | 909     | 475     | 221     | 71      | 3       | 0       | 0       | -12     | 0       | 60      | 483,831   |
| Yucca Mountain Project                 | 50,375  | 65,285  | 63,527  | 89,981  | 103,172 | 140,857 | 180,189 | 180,564 | 181,148 | 189,437 | 229,053 | 279,713 | 377,469 | 249,298 | 274,625 | 341,300 | 296,542 | 320,504 | 328,438 | 3,941,479 |
| Salt Project                           | 64,079  | 83,838  | 87,843  | 98,017  | 115,070 | 54,220  | 9,486   | 1,468   | 412     | -193    | 525     | -257    | 282     | -155    | 27      | -238    | -73     | 230     | 0       | 514,579   |
| RTP/Technical Support                  |         |         |         |         | 37,404  | 47,667  | 38,072  | 17,855  | 5,743   | 11,335  | 481     | 108     | 533     | -2      | 0       | 0       | 17      | 0       | 4       | 159,217   |
| SECOND REPOSITORY                      | 8,376   | 17,094  | 22,370  | 26,028  | 6,988   | 375     | 58      | 0       | 0       | 0       | 0       | 0       | -3      | 5       | 0       | 0       | 0       | 0       | 0       | 81,291    |
| WAST PROJECT                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| MRS                                    | 3,723   | 10,436  | 15,339  | 5,925   | 1,384   | 1,364   | 1,566   | 2,109   | 5,459   | 21,336  | 15,385  | 3,698   | 8,152   | 114     | 0       | 0       | -11     | 0       | 0       | 95,979    |
| Engineering Development (a)            | 0       | 0       | 179     | 3,097   | 10,557  | 7,991   | 5,323   | 10,255  | 9,055   | 6,398   | 4,290   | 12,065  | 9,709   | 15,381  | 947     | 328     | -4      | -18     | 10      | 95,561    |
| Transportation System                  | 0       | 1,541   | 2,226   | 5,768   | 10,835  | 15,582  | 25,901  | 21,628  | 19,792  | 16,635  | 15,149  | 15,167  | 10,736  | 5,665   | 3,317   | 2,114   | 267     | -35     | 114     | 172,402   |
| Waste Acceptance (b)                   |         |         |         |         |         |         |         |         |         |         | 6,630   | 3,721   | 4,748   | 4,195   | 675     | 738     | 972     | 1,116   | 1,178   | 23,974    |
| Project Integration (e)                |         |         |         |         |         |         |         |         |         |         |         |         | 1,785   | 3,611   | 1,033   | 1,752   | 626     | 1,003   | 843     | 10,654    |
| Spent Fuel Storage                     |         |         |         |         |         |         |         |         |         |         |         |         |         | 2,331   | 3,318   | 1,588   | -187    | 174     | 35      | 7,259     |
| PROGRAM INTEGRATION                    |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| Quality Assurance                      | 0       | 0       | 0       | 0       | 0       | 136     | 471     | 1,588   | 2,911   | 3,179   | 10,593  | 12,628  | 11,744  | 18,297  | 15,478  | 10,670  | 10,513  | 11,006  | 12,433  | 121,648   |
| Program Management & Integration (c,e) | 8,651   | 36,382  | 54,350  | 64,824  | 54,909  | 51,850  | 60,830  | 57,978  | 71,225  | 66,417  | 59,347  | 50,855  | 51,331  | 34,845  | 31,037  | 33,314  | 29,791  | 30,193  | 31,679  | 879,810   |
| Human Resources & Administration       | 147     | 1,108   | 574     | 584     | 686     | 275     | 283     | 7,661   | 5,287   | 10,795  | 28,433  | 27,096  | 31,065  | 10,825  | 9,344   | 10,240  | 7,347   | 8,996   | 9,510   | 170,254   |
| TOTAL (OCRWM)                          | 178,311 | 275,992 | 316,255 | 398,711 | 469,185 | 382,025 | 330,836 | 305,698 | 302,400 | 326,248 | 370,360 | 405,015 | 507,622 | 344,413 | 339,801 | 401,806 | 345,789 | 373,169 | 384,304 | 6,757,939 |
| OCRWM                                  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| NWF Appropriation                      | 178.311 | 275,992 | 316,255 | 398,711 | 469,185 | 382,025 | 330,836 | 305,698 | 302,400 | 326,248 | 271.093 | 284,883 | 381.879 | 195,486 | 145,611 | 193,837 | 155.196 | 267.360 | 174.724 | 5,355,731 |
| Defense Appropriation (f)              |         |         | ,       |         | ,       |         | ,       |         | ,,,,,   |         | 99,267  | 120,132 | 125,743 | 148,927 | 194,189 | 207,969 | 190,593 | 105,809 | 209,580 | 1,402,208 |
| TOTAL (OCRWM)                          | 178,311 | 275,992 | 316,255 | 398,711 | 469,185 | 382,025 | 330,836 | 305,698 | 302,400 | 326,248 | 370,360 | 405,015 | 507,622 | 344,413 | 339,801 | 401,806 | 345,789 | 373,169 | 384,304 | 6,757,939 |
| NON-OCRWM (g)                          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| NRC Fees                               |         |         |         |         |         | 19,932  | 18,674  | 22,870  | 19.650  | 19,962  | 21,100  | 22.000  | 22,000  | 11,000  | 15,000  | 15,000  | 17,000  | 19,150  | 21,600  | 264,938   |
| NWTRB                                  |         |         |         |         |         |         | ,       | 2,000   | . 5,000 | 3,294   | 2,060   | 2,160   | 2,664   | 2,531   | 2,600   | 2,600   | 2,600   | 2,600   | 2,900   | 28,009    |
| NWN                                    |         |         |         |         |         |         |         | 5,959   |         | -,,     | _,.50   | 1,000   | 1,000   | _,,     | _,,,,,  | _,,,,,  | _,      | -,      | _,      | 7,959     |
| TOTAL (NON-OCRWM)                      |         |         |         |         | _       | 19,932  | 18,674  | 30,829  | 19,650  | 23,256  | 23,160  | 25,160  | 25,664  | 13,531  | 17,600  | 17,600  | 19,600  | 21,750  | 24,500  | 300,906   |

Note: Each cost entry is rounded to the nearest thousand. Rows and columns may not add due to this independent rounding.

<sup>(</sup>a) Engineering Development costs include MPC development from FY 1993 through FY 1999.

(b) Waste Acceptance costs prior to FY 1993 were included in Program Management and Integration.

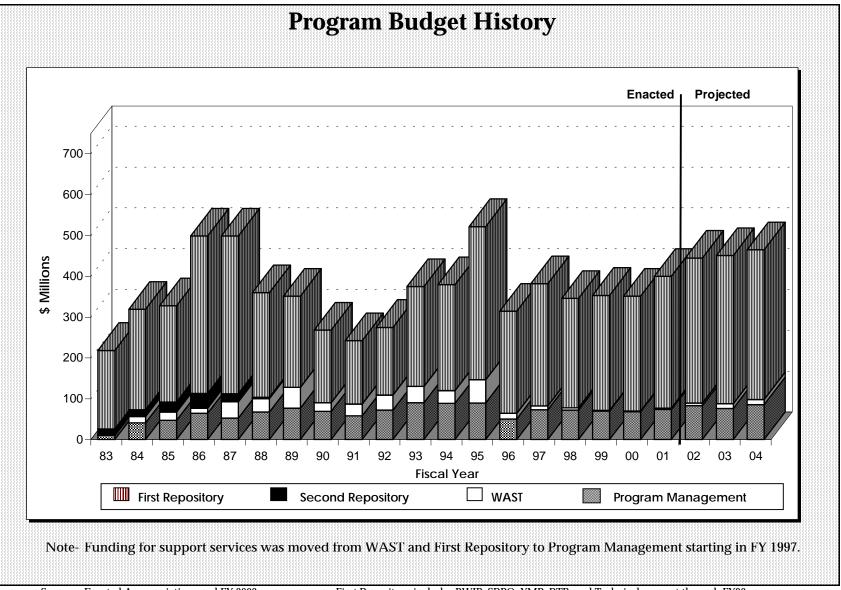
(c) Includes Debt Service from FY 1983 to F3.316M, \$4.472M, and \$2.512M, and \$2.512M, respectively. Does not include FY 1988 and FY 1989 NRC Fees costs of \$38,606,205 recorded in FIS in FY 1989.

(d) All OCRWM cost categories are OCRWM baselined projects except for First Repository, Program Integration, and the subdivisions of the WAST Project. OCRWM costs are from End-of-Year Financial Information Systems Reports. Non-OCRWM costs before FY 1990 are NRC reported costs while after FY 1989 they are appropriations.

(e) MRS Project Support costs are in Program Management and Integration in fiscal years 1993, 1994, and 1996 and in WAST Project Integration in fiscal year 1995.

<sup>(</sup>f) Does not include costs from the S5M in FY91 and \$7.5M in FY92 deposited into the nuclear waste fund by the Defense Environmental Restoration and Waste Management Program for the defense high-level waste disposal fee.

<sup>(</sup>g) All costs are appropriations, except for NRC Fees in fiscal years 1988 and 1989, which are the actual costs reported by NRC.



Sources: Enacted Appropriations and FY 2002 Congressional Budget Request First Repository includes BWIP, SRPO, YMP, RTP, and Technical support through FY92. Includes \$100M in FY93, \$120M in FY94, \$129.43M in FY95, \$163.4M in FY96, \$200M in FY97, \$190M in FY98, \$189M in FY99, \$111.6M in FY00, \$209.7M in FY01, \$310M in FY02, \$313M in FY03, and \$324M in FY04 from the Defense Nuclear Waste Disposal Appropriation. Does not include \$4M appropriated in FY99 from general revenues to assess accelerator transmutation of waste (ATW) technology. Does not include budget appropriated for NRC Fees, the NWN, or the NWTRB.

# PROGRAM BUDGET HISTORY (a) (NUCLEAR WASTE FUND AND DEFENSE APPROPRIATION) (b) (dollars in thousands)

|                              | FY83    | FY84    | FY85    | FY86    | FY87    | FY88    | FY89    | FY90                     | FY91    | FY92            | FY93            | FY94                     | FY95                     | FY96                 | FY97 (g)             | FY98 (g)             | FY99 (g,h)           | FY00 (g,i)           | FY01 (j)             | Total                      |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|--------------------------|---------|-----------------|-----------------|--------------------------|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------------|
| OCRWM (By category)          |         |         |         |         |         |         |         |                          |         |                 |                 |                          |                          |                      |                      |                      |                      |                      |                      |                            |
| FIRST REPOSITORY             | 192,537 | 246,560 | 235,246 | 386,050 | 386,446 | 256,000 | 223,700 | 177,816                  | 155,180 | 165,550         | 244,697         | 259,509                  | 375,270                  | 250,000              | 299,459              | 267,710              | 281,879              | 281,175              | 323,542              | 5,008,326                  |
| SECOND REPOSITORY            | 12,322  | 16,270  | 24,709  | 35,500  | 19,800  | 3,500   |         |                          |         |                 |                 |                          |                          |                      |                      |                      |                      |                      |                      | 112,101                    |
| WAST PROJECT                 | 3,499   | 15,900  | 20,344  | 12,925  | 39,700  | 33,000  | 51,000  | 21,200                   | 29,310  | 36,848          | 39,630          | 31,866                   | 56,729                   | 13,600               | 9,360                | 5,947                | 1,850                | 1,795                | 2,661                | 427,164                    |
| PROGRAM<br>MANAGEMENT (c, d) | 10,242  | 40,891  | 47,370  | 64,562  | 53,054  | 67,500  | 77,132  | 69,040                   | 58,340  | 72,673          | 90,744          | 88,625                   | 90,061                   | 50,867               | 73,181               | 72,343               | 69,736               | 68,205               | 74,176               | 1,238,742                  |
| TOTAL (OCRWM) (e)            | 218,600 | 319,621 | 327,669 | 499,037 | 499,000 | 360,000 | 351,832 | 268,056                  | 242,830 | 275,071         | 375,071         | 380,000                  | 522,060                  | 314,467              | 382,000              | 346,000              | 353,465              | 351,175              | 400,379              | 6,786,333                  |
| OCRWM (By Approp)            |         |         |         |         |         |         |         |                          |         |                 |                 |                          |                          |                      |                      |                      |                      |                      |                      |                            |
| NWF Appropriation            | 218,600 | 319,621 | 327,669 | 499,037 | 499,000 | 360,000 | 351,832 | 268,056                  | 242,830 | 275,071         | 275,071         | 260,000                  | 392,630                  | 151,067              | 182,000              | 156,000              | 164,465              | 239,601              | 190,654              | 5,373,204                  |
| Defense Approp (e)           |         |         |         |         |         |         |         |                          |         |                 | 100,000         | 120,000                  | 129,430                  | 163,400              | 200,000              | 190,000              | 189,000              | 111,574              | 209,725              | 1,413,129                  |
| TOTAL (OCRWM) (e)            | 218,600 | 319,621 | 327,669 | 499,037 | 499,000 | 360,000 | 351,832 | 268,056                  | 242,830 | 275,071         | 375,071         | 380,000                  | 522,060                  | 314,467              | 382,000              | 346,000              | 353,465              | 351,175              | 400,379              | 6,786,333                  |
| NON-OCRWM                    |         |         |         |         |         |         |         |                          |         |                 |                 |                          |                          |                      |                      |                      |                      |                      |                      |                            |
| NRC Fees<br>NWTRB<br>NWN (f) |         |         |         |         |         |         | 15,000  | 49,970<br>2,000<br>5,959 | 19,650  | 19,962<br>3,294 | 21,100<br>2,060 | 22,000<br>2,160<br>1,000 | 22,000<br>2,664<br>1,000 | 11,000<br>2,531<br>0 | 11,000<br>2,531<br>0 | 15,000<br>2,600<br>0 | 17,000<br>2,600<br>0 | 19,150<br>2,600<br>0 | 21,600<br>2,900<br>0 | 264,432<br>27,940<br>7,959 |
| TOTAL (NON-OCRWM)            |         |         |         |         |         |         | 15,000  | 57,929                   | 19,650  | 23,256          | 23,160          | 25,160                   | 25,664                   | 13,531               | 13,531               | 17,600               | 19,600               | 21,750               | 24,500               | 300,331                    |

- (a) The source for each fiscal year's budget authority is the last Congressional Budget Request (CBR) which listed the BA for that year. For example, FY 1995 BA was last listed in the FY 1997 CBR.
- (b) This chart includes budget authority derived from the Nuclear Waste Fund which was appropriated for nuclear waste disposal, the Nuclear Waste Technical Review Board, the Nuclear Regulatory Commission, and the Nuclear Waste Negotiator. It also includes appropriations for defense nuclear waste disposal. This chart does not include non-Program budget authority such as the \$4M appropriated from general revenues in FY 1999 to assess accelerator transmutation of waste (ATW) technology nor sums appropriated for energy supply R&D activities conducted by OCRWM.
- (c) FY95 reflects the rescission of \$196K. FY96 reflects the rescission of \$559K by P.L. 104-134
- (d) Includes \$26K in FY95 and \$26K in FY96 from the DOE Departmental Administration appropriation funded from sources other than the NWF.
- (e) FY96 does not include \$85M appropriated for Interim Storage Facility (ISF), but not authorized. Does not include the \$5M in FY91 and \$7.5M in FY92 deposited into the nuclear waste fund by the Defense Environmental Restoration and Waste Management Program for the defense high-level waste disposal fee.
- (f) FY94 funded from sources other than the NWF.
- (g) First Repository and WAST Project support services funding is included in Program Management after FY 1996. FY98 reflects the rescission of \$4 million appropriated for NRC to use to license an MPC design.
- (h) The Emergency Steel Loan Guarantee and Emergency Oil and Gas Guaranteed Loan Act of 1999 (H.R. 1664) rescinded \$535,000 of FY 1999 funds from the Nuclear Waste Disposal Fund appropriation.
- (i) For FY 2000, Public Law 106-113 rescinded \$426,000 from the Defense Nuclear Waste Fund appropriation and \$899,000 from the Nuclear Waste Disposal Fund appropriation.
- (j) For FY 2001, the FY 2001 Consolidated Appropriations Act rescinded \$275,000 from the Defense Nuclear Waste Fund appropriation and \$420,000 from the Nuclear Waste Disposal Fund appropriation.