Other Defense Activities

Office of Civilian Radioactive Waste Management (OCRWM)

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2003 Comparable Appropriation	FY 2004 Original Appropriation	FY 2004 Adjustments	FY 2004 Comparable Appropriation	FY 2005 Request
National Spent Nuclear Fuel Program	6,991	7,989	0	7,989	8,217
Foreign Research Reactor Spent Nuclear Fuel Acceptance Program	440	6,062	0	6,062	4,918
Management of the Chemical Processing Plant-666	7,637	7,797	0	7,797	8,055
Program Direction	979	1,010	0	1,010	1,060
Total, Other Def Activities (OCRWM)	16,047	22,858	0	22,858	22,250

Preface

In FY 2005, the Office of Civilian Radioactive Waste Management will assume responsibility (1) for the management of the National Spent Nuclear Fuel Program (NSNFP) at the Idaho National Environmental and Engineering Laboratory; and (2) the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program and Management of the Chemical Processing Plant-666 from EM.

Within the Other Defense Activities appropriation, OCRWM has only one program: Civilian Radioactive Waste Management.

This Overview will describe Strategic Context, Mission, Benefits, Strategic Goals, and Funding by General Goal. These items together put the appropriation in perspective. The Annual Performance Results and Targets, Means and Strategies, and Validation and Verification sections address how the goals will be achieved and how performance will be measured. Finally, this Overview will address Program Assessment Rating Tool (PART), and Significant Program Shifts.

Strategic Context

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven

general goals to support the strategic goals. Each appropriation has developed quantifiable goals to support the general goals. Thus, the "goal cascade" is the following:

Department Mission — Strategic Goal (25 yrs) — General Goal (10-15 yrs) — Program Goal (GPRA Unit) (10-15 yrs)

To provide a concrete link between budget, performance, and reporting, the Department developed a "GPRA unit" concept. Within DOE, a GPRA Unit defines a major activity or group of activities that support the core mission and aligns resources with specific goals. Each GPRA Unit has completed or will complete a Program Assessment Rating Tool (PART). A unique program goal was developed for each GPRA unit. A numbering scheme has been established for tracking performance and reporting.

The goal cascade accomplishes two things: First, it ties major activities for each program to successive goals and, ultimately, to DOE's mission. This helps ensure the Department focuses its resources on fulfilling its mission. Second, the cascade allows DOE to track progress against quantifiable goals and to tie resources to each goal at any level in the cascade. Thus, the cascade facilitates the integration of budget and performance information in support of the GPRA and the President's Management Agenda (PMA).

Mission

The current mission of the Office of Civilian Radioactive Waste Management (OCRWM) is to manage and dispose of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety, and the environment; enhances national and energy security; and merits public confidence. In FY 2005, OCRWM's mission will be expanded to address certain SNF management and transportation responsibilities. The ultimate disposition of all SNF is geologic disposal in a repository.

Benefits

Spent nuclear fuel (SNF) and high-level radioactive waste (HLW) have accumulated in the United States during the last half-century from nuclear weapon production, nuclear-powered naval vessels usage, DOE test reactors, research reactors, and electricity generation. The United States has evaluated methods for the safe storage and disposal of SNF and HLW for more than 40 years. After analyzing a range of options, disposal in mined geologic repositories emerged as the preferred long-term environmental solution for the management of SNF and HLW. Congress assigned responsibility to the DOE to: site, apply for a license, construct, operate, and close a repository for the disposal of SNF and HLW. In addition, the Nuclear Waste Policy Act (NWPA) assigned responsibility to the generators and owners of SNF and HLW to pay the costs of disposal of such radioactive materials.

OCRWM's current mission is to "manage and dispose of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety, and the environment; enhances national and energy security; and merits public confidence." With site designation, OCRWM has initiated the next phase of repository development; namely, licensing in accordance with applicable U.S. Nuclear Regulatory Commission (NRC) regulations and authority and funding in accordance with DOE and Office of Management and Budget requirements and regulations. OCRWM, with the support of its management

and operating contractor (M&O), is preparing a License Application for submittal to the Nuclear Regulatory Commission (NRC) in December 2004.

Strategic Goals

The Department's Strategic Plan identifies four strategic goals, one each for defense, energy, science, and environmental aspects of the mission, plus seven general goals that tie to the strategic goals. The Other Defense Activities appropriation support the following goal:

Environment Strategic Goal: To protect the environment by providing a responsible resolution to the environmental legacy of the Cold War and by providing for the permanent disposal of the Nation's high-level radioactive waste.

General Goal 7, Nuclear Waste: License and construct a permanent repository for nuclear waste at Yucca Mountain and begin acceptance of waste by 2010.

The program funded within the Other Defense Activities appropriation has one Program Goal that contributes to the General Goal in the "goal cascade". This goal is General Goal 7, Nuclear Waste.

Program Goal 7.25.00.0, Planned Annual Operational Rate: The Yucca Mountain repository is licensed, constructed, and operating; the national and Nevada waste transportation systems are in place; activities required to support receipt and emplacement of spent nuclear fuel (SNF) and high-level radioactive waste (HLW) at the repository are proceeding on schedule.

Contribution to General Goal

Within the Civilian Radioactive Waste Management Program, the Yucca Mountain Sub-Program contributes to General Goal 7 by preparing and submitting the license application to NRC by 2004 for a repository construction authorization by 2008 and subsequently constructing and operating the repository by 2010. The Transportation Sub-Program contributes to General Goal 7 by developing the transportation network, equipment, and facilities that are required for shipment of waste to the repository by 2010.

Funding by General Goal

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	$ Change	% Change
General Goal 7, Other Defense Activities					
Program Goal 7.25.00.0, Planned Annual Operational Rate	16,047	22,858	22,250	-608	-2.7%
Subtotal, General Goal 4	16,047	22,858	22,250	-608	-2.7%
Total, General Goal 7 (Other Defense Activities)	16,047	22,858	22,250	-608	-2.7%

Means and Strategies

During FY 2005, the Civilian Radioactive Waste Management Program will focus its activities on work relating to repository licensing and design, especially repository license defense; and planning and acquisition of the required transportation network, equipment, and facilities to support waste acceptance at the repository. Memoranda of Agreement (MOA) have been negotiated between OCRWM and the Naval Nuclear Propulsion Program and between OCRWM and the Department's Office of Environmental Management. The Program also collaborates with several other nations to address common technical issues associated with radioactive waste management and disposal.

Validation and Verification

The Program's activities are subject to continuing review by the Congress, the General Accounting Office, the Department's Inspector General, the Nuclear Regulatory Commission, the Environmental Protection Agency, the Nuclear Waste Technical Review Board, and the Department's Office of Engineering and Construction Management. The latter performs external independent reviews and independent cost estimates prior to critical decisions. In addition, the Program Director reviews the progress and schedule and cost performance of the Yucca Mountain and Transportation Sub-Programs on a quarterly basis. The Yucca Mountain Sub-Program Manager conducts similar reviews monthly. The quality of the Program's work is subject to a Nuclear Regulatory Commission-approved quality assurance program. The Program's financial statements are audited annually by an independent public accounting firm. The Program has received an unqualified ("clean") auditors' opinion every year since inception. Finally, the Program conducts an annual internal controls review under the Federal Managers' Financial Integrity Act. The Program's performance measures and associated quarterly milestones are reviewed and approved by the OCRWM Director and then entered into and tracked in the Department's performance measurement database. Final performance results are audited and reported both in OCRWM's Annual Report to the Congress and the Department's Performance and Accountability Report.

Program Assessment Rating Tool (PART)

The Department implemented a tool to evaluate selected programs. PART was developed by the Office of Management and Budget (OMB) to provide a standardized way to assess the effectiveness of the Federal Government's portfolio of programs. The structural framework of the PART provides a means through which programs can assess their activities differently than through traditional reviews.

The first PART review of OCRWM's Yucca Mountain Project resulted in the assignment of an "adequate" rating by OMB based on an overall score of 50. In many instances, the Yucca Mountain Project isn't at a stage where it can be effectively evaluated as a mature project. After last year's site designation, the project is transitioning from a site recommendation to a design, licensing, and construction project. A score of 100 was awarded in the "Project Purpose and Design" section. "Strategic Planning" and "Program Management" were scored 67 and 75, respectively. The score of 16 in the "Project Results" section reflects OMB's position that the Project lacks an adequate performance baseline, that its "Earned Value Management System" (EVMS) has not been certified, and that its "Capital Asset Management Plan," incorporating an acquisition strategy had not been finalized. The performance baseline and certification of EVMS is required by DOE Order 413.3 at the time of Critical

Decision 2 scheduled for September 2005. There had been consideration for an earlier start, but it was determined there would be a detrimental impact to the confidence in achieving the completion of the License Application submission. The project has a performance measurement baseline in place and performance data is being collected and reported using an earned value management system, which has been in place since 1991. Development of the Capital Asset Management Plan was in process at the time the PART was completed; and an update of a final draft was completed in November 2003.

Significant Program Shifts

In FY 2005, the Office of Civilian Radioactive Waste Management will assume responsibility for the management of the National Spent Nuclear Fuel Program (NSNFP) at the Idaho National Environmental and Engineering Laboratory. The NSNFP provides integration, planning, and technology solutions for Department-owned spent nuclear fuel, and conducts analyses of DOE SNF to support repository licensing and transportation system development. Management of this program will transfer from the Office of Environmental Management to OCRWM.

Also, in FY 2005, OCRWM will assume responsibility for the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program and Management of the Chemical Processing Plant-666 from EM. Assuming these responsibilities ensure resolution of issues regarding the safe interim storage, transportation, and proper resolution of all DOE SNF.

These functions being transferred to OCRWM in FY 2005, will be managed by the newly formed Office of DOE Spent Fuel Management, which will report to the OCRWM Director. This Office has responsibility for the management and integration of DOE spent fuel activities across the DOE complex as well as spent fuels from civilian domestic and foreign research reactors.

Office of Civilian Radioactive Waste Management

Funding Schedule by Activity

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	$ Change	% Change
National Spent Nuclear Fuel Program	6,991	7,989	8,217	+228	+2.9%
Foreign Research Reactor Spent Nuclear Fuel Acceptance Program	440	6,062	4,918	-1,144	-18.9%
Management of the Chemical Processing Plant-666	7,637	7,797	8,055	+258	+3.3%
Total, Other Defense Activities (OCRWM) . . .	15,068	21,848	21,190	-658	-3.0%

Description

The Office of Environmental Management (EM) and OCRWM have agreed to realign the responsibility for the National Spent Nuclear Fuel Program, which provides integration, planning, and technology support for DOE SNF, coordination and transportation of the Foreign Research Reactor Acceptance Program, and management of specific SNF storage facilities at the Idaho National Environmental and Engineering Laboratory.

Detailed Justification

	(dollars in thousands)		
	FY 2003	FY 2004	FY 2005
National Spent Nuclear Fuel Program	**6,991**	**7,989**	**8,217**

The Office of Environmental Management (EM) and RW have agreed to transfer the responsibility for the national spent nuclear fuel program managed by the Idaho National Engineering and Environmental Laboratory from EM to RW. The National Spent Nuclear Fuel Program ensures resolution of issues regarding the characterization, safe interim storage, transportation, and proper final disposition of all U.S. Department of Energy spent nuclear fuel. This program supports the RW mission by providing criticality and design envelope analyses, technical support, quality assurance, and information technology needed to include all acceptable DOE spent fuel in the repository program license application and support certification of transportation casks for DOE spent fuel. The program also provides technology solutions and guidance for safe, efficient management of DOE spent fuel storage sites. These activities provide opportunities for cost savings resulting from integration and consolidation.

Foreign Research Reactor Spent Nuclear Fuel Acceptance Program	**440**	**6,062**	**4,918**

The Office of Environmental Management (EM) and RW have agreed to consolidate specific functions related to receipt and transportation of foreign research reactor spent nuclear fuel within RW. Responsibility for the coordination and management of Foreign Research Reactor SNF Acceptance Program will be moved from EM to RW. EM will be responsible for receipt and unloading for FRR casks at storage sites at the Idaho National Environmental and Engineering Laboratory and the Savannah River Site.

There are different responsibilities and funding mechanisms, depending on whether the reactor is located in a high-income or "other than high-income" country. High-income nations participating in the Foreign Fuel program pay fees that cover the costs of their spent fuel returns. These fees are managed separate "work for others" and receipts. The receipts from the program will continue to be used to offset the cost of fuel handling and storage at the EM facilities, and the balance will be continue to be funded within EM's appropriations for general SNF interim management activities. Costs of shipments from "other than high income" nations participating in the program are funded by the Department, including program direction for the transportation services contractor. In all cases, OCRWM will be responsible for coordinating international shipments from the host country back to the U.S. and for transportation of SNF to a Department-managed storage site. Funding also supports the base program management activities, negotiations with foreign research reactors, contract development, and emergency preparedness.

(dollars in thousands)

FY 2003	FY 2004	FY 2005

The FRR SNF is targeted for ultimate disposition at a geologic repository. Transferring responsibility – including planning, coordination, receipt and transportation - allows for consistent planning and policy for the transportation of SNF. This change does not affect the storage and future packaging for fuel within EM-managed storage basins.

Management of the Chemical Processing Plant-666	**7,637**	**7,797**	**8,055**

The Office of Environmental Management (EM) and RW have agreed to transfer responsibility for specific spent nuclear fuel (SNF) storage facilities at the Idaho National Engineering and Environmental Laboratory from EM to RW. The facility and the materials are not a legacy of the Cold War and does not directly correspond to the EM mission. Program responsibility includes maintenance and operations of the Chemical Processing Plant-666 Facility (CPP-666) and the interim storage of the SNF presently located there. This transfer does not include costs associated with adding or removing SNF from CPP-666. EM remains responsible for the de-inventory of SNF within the basin.

Total, Other Defense Activities	**15,068**	**21,848**	**21,190**

Explanation of Funding Changes

	FY 2005 vs. FY 2004 ($000)
National Spent Nuclear Fuel Program	
The increase in funding is due to the Office of Environmental Management (EM) and OCRWM agreeing to realign the responsibility for the national spent nuclear fuel program managed by the Idaho National Engineering and Environmental Laboratory.	+228
Foreign Research Reactor Spent Nuclear Fuel Acceptance Program	-1,144
The decrease in funding is due to the Office of Environmental Management (EM) and OCRWM agreeing to realign the responsibility for the foreign research reactor spent nuclear fuel acceptance program at the Idaho National Engineering and Environmental Laboratory and Savannah River Site.	
Management of the Chemical Processing Plant-666	
The increase in funding is due to the Office of Environmental Management (EM) and OCRWM agreeing to realign the responsibility for the interim storage of specific spent nuclear fuel at the Idaho National Engineering and Environmental Laboratory to ensure resolution of non-legacy spent nuclear fuel.	+258
Total Funding Change, Other Defense Activities	-658

Program Direction

Funding Profile by Category

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	$ Change	% Change
Headquarters, SRS, and ID					
Salaries and Benefits	979	1,010	1,060	+50	+5.0%
Total, Program Direction	979	1,010	1,060	+50	+5.0%
Total, Full-time Equivalents	0	0	8	+8	+100.0%

Mission

Program Direction provides overall direction and administrative support for the Office of Civilian Radioactive Waste Program to manage the programs to facilitate management of SNF integration, management and/or transportation programs transferred from the Offices of Environmental Management and Nuclear Energy, Science and Technology to OCRWM.

Detailed Justification

(dollars in thousands)

	FY 2003	FY 2004	FY 2005
Salaries and Benefits	**979**	**1,010**	**1,060**

Funds salaries, awards, lump sum leave payments, benefits and buyout compensation for full-time permanent and other than full-time permanent employees.

Total, Program Direction	**979**	**1,010**	**1,060**

Explanation of Funding Changes

	FY 2005 vs. FY 2004 ($000)
Salaries and Benefits	
▪ The increase in salaries and benefits is due to establishment of a new function within the OCRWM office to address additional SNF management, integration, and/or transportation activities	+50
Total Funding Change, Program Direction	**+50**